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# THE MARYLAND FARMER:

DEVOTED TO  
Agriculture, Horticulture, Rural Economy & Mechanic Arts.

Vol. 6.

BALTIMORE, MAY, 1869.

No. 5.

## CORN AND ITS CULTIVATION.

The proper soil for corn is one that is deep, rich, warm, mellow and porous. If the ground is hard or gravelly, without depth, but going down to hard pan, there is little likelihood of a good crop.— Though corn is hardy and will grow nearly any where within the limits of the climate adapted to it, light, air, and moderate heat and moisture are needed. It requires also a full supply of all the elements which form its proper food to reach a maturity in which both ear and stalk attain to their full development, and give the most productive yield. River bottoms and sandy and loamy soils, rich in vegetable mould, form our best corn lands. These are not always in the farmer's possession, and resort must be had to fertilizers, which can hardly be too liberally applied. Corn is a greedy feeder, and rapidly takes up and assimilates the nutritious properties of the soil. Barn yard manure, if it has been well preserved and all its valuable constituents retained, is among the best as it is also the most economical of fertilizers that can be used. Land liberally broadcasted with manure, then ploughed thoroughly, harrowed and laid off at the distance at which the hills are to stand, is ready for planting. In preparing the land, the plough should be run deep, the soil well broken up and finely pulverized. The more thoroughly the soil is disintegrated the more rapidly, under favorable conditions, will the corn grow, and the less liable will it be to be affected by drought. This loose and porous condition of the soil is a prime necessity in the production of a good crop. It admits free entrance to rain and air, it allows the decomposition, by their action, of the organic, and the disintegration of the inorganic matters in the soil. Being thus decomposed and disintegrated, and consequently rendered more soluble, these constituents become properly available food for the growing plant.

In land thus prepared, moreover, there are no obstacles, in soils long under cultivation, to laying off the rows in a proper manner. The use of the hoe, the shovel plough, and the cultivator, is render-

ed easier and more beneficial in the after culture, and the roots of the plants, whether spreading laterally or striking deeply into the soil, are enabled to ramify to greater distances in search of appropriate food. In ploughing, therefore, the soil should be broken up to a depth of from eight to twelve inches. The harrow should then follow, first in the direction of the furrows and next across them, and after this, if the land is either very cloddy or very light, the roller should follow. The after culture is conducted with the hoe, the cultivator and the shovel plough.

It is important, nevertheless, that the farmer, before putting his crop in the ground, should know what the soil is able to afford the growing plants for their vigorous development. This can be acquired, as a general rule, by an analysis of the soil, and a knowledge of the organic and inorganic constituents of which the grain, leaf and stalk are composed. The following analysis by Professor Johnston gives the composition of the grain and stalk. The proportion of each constituent is given for one thousandth part of the ash. In other words, in one thousand pounds weight of the ashes of corn stalks, and of the grain of corn, respectively, the following constituents are found:

	Grain.	Stalk and Leaf.
Potash.....	335	96
Soda.....	289	289
Lime.....	14	83
Magnesia.....	162	66
Oxide of Iron.....	3	8
Phosphoric Acid.....	449	171
Sulphuric Acid.....	28	7
Chlorine.....	14	15
Silica.....	2	270
	997	1012

A glance at the above table will show to what an enormous extent potash, and soda, and bone phosphate of lime, enter into the composition of the stalk, leaf and grain of corn. Where these are deficient in the soil, or even where any one of them is wanting, it is evident that the crop will suffer. It is believed, however, that where potash is deficient in the soil, and soda in full supply, or where soda is deficient and potash in full supply, the one will act as the equivalent of the other, and that the crop of corn will still be good. But the presence of a good

supply of phosphate of lime is equally necessary, and as this constituent is usually soonest exhausted in corn and tobacco lands, its application to the soil either in the form of ground bone, or as a super-phosphate, or, better still, as an ammoniated phosphate, will be found exceedingly valuable. Indeed, we have known instances in which, by the use of bone earth alone, a heavy crop of corn has been taken from land which would not have yielded otherwise more than four or five barrels to the acre, whilst the effect of the bone earth on the clover, which followed the second year thereafter, was equally marked.

If the soil, in addition to the want of phosphates lack soda, or potash, unleached ashes will supply the deficiency, or, as more convenient though more costly, the potash and soda of commerce.

Wherever then the soil has been so far exhausted by previous cultivation as to need the application of fertilizers, the first and readiest mode of obtaining them is from the barn-yard. But wherever large areas are cultivated in corn, this source of supply will very often be found inadequate. Under such circumstances, recourse must be had either to commercial fertilizers, or to wood ashes (unleached if possible,) or the crude soda or potash of commerce, together with bone earth or the manufactured phosphates which have recently come into such general use. There is one other way of reaching the same result, and that is by composts. If it is concluded, as being more economical, to use the latter, either of the following mixtures will be found sufficient for an acre of soil in moderate condition :

No. 1. 250 pounds of ammoniated phosphate ; 10 bushels of unleached ashes, or double the quantity of leached ; 5 two-horse loads of barn-yard manure.

Mix, spread broadcast and ploughed under.

No. 2. 10 loads of barn-yard manure ; 150 pounds of super-phosphate ; 5 bushels of wood ashes ; 1 bushel of plaster ; 2 bushels of refuse salt.

Mixed, broadcasted and ploughed under.

No. 3. 5 bushels of bone dust ; 15 bushels of leached ashes ; 100 pounds of nitrate of potash or soda ; 10 loads of barn-yard manure ; 1 bushel of plaster.

Compost for ten days, then break down and mix well and cart out, spread broadcast and plough under.

The main thing in growing good crops of corn is that the soil shall be light, and shall contain all the elements of fertility essential to the rapid growth of the plant. Where such is the case, deep ploughing and thorough after culture are all that are required, provided the season be favorable, to the production of as good a crop as the land is capable of yielding.

## FAILURE OF FRUIT ORCHARDS.

From all quarters we hear of the decay of fruit orchards. The fine apple orchards that were once a pride and profit to their owners are dying out.—Of the choicest kinds of apples there are now but few left. The old red-streak, the finest cider apple in the world, is rarely now to be met with. The Rambo is sharing a similar fate. The golden pippin is becoming scarcer year by year, and so of all the older varieties there are but few left. The new varieties in Maryland, and to the South of us, do not succeed well, and perish early.

So too of pears. How few are there now of this choice fruit to what there used to be among us, and of those few, how rare is it to find them in perfection. In the Northern and Western States these fruits do better. In the Northern, because the climate is more favorable to the growth of the apple and pear, and because greater attention has been given to their proper cultivation. In the Western, because the fruits are seedlings, and are grown to a great extent on virgin soil.

But the same fate, with us, has attended the plum, which falls almost certainly a victim to the curculio, and to the apricot which rarely matures its fruit.—But the most serious circumstance of all is the gradual decline of the peach trees. In respect to climate and soil Maryland, and the States to the South of us are both admirably adapted to the growth of this delicious fruit. Years ago, when the Cromwell and Somerville orchards were in their prime, the quantity of peaches they bore, the quality of the fruit, and the number of years the trees were in bearing before they showed signs of decadence, were all that could be desired. Even now, seedling peach trees may be found growing in hedge rows and bye-places, which are four times the size of the cultivated tree, and which are hardy, bear profusely, and live to a great age. We know of one still living which dates back full twenty-five years from the seed. The fruit, of course, is not as luscious and juicy as the cultivated peach, but the longevity of such trees, and their constant bearing qualities, are a proof that there are defects in the mode of raising and cultivation the peach which require to be remedied.

Our opinion is, that the decadence both of apple and peach trees, in orchards where they are cultivated for their fruit, is not altogether owing to the exhaustion of the soil of those constituents upon which it thrives ; but is largely attributable to the fact that nearly all our orchards are of grafted or budded fruit. This theory is largely sustained by the fact that when new orchards are planted out, on good soils that have never before grown either the apple or the peach, the trees are rarely long lived, and in



the case of the apple, the fruit, in many instances, rapidly deteriorates. So far as the peach is concerned, we know of a seedling orchard of remarkably fine fruit which has borne well for many years, and, when we last saw it, was not only vigorous and thrifty but had survived for years other peach orchards of budded fruit which were planted in the vicinity.—Of course, care and attention were annually given to the orchard in question, but not more than is generally given to orchards of budded fruit by skillful cultivators. It must be remembered that grafts and buds are taken, but too frequently, from trees that were either diseased at the time, or were already in process of decay, and that the vitality of the bud or graft necessarily partakes under such circumstances of the condition of the parent tree.

Again, it may appear fanciful, and, therefore, we throw it out simply as a suggestion, but may not the same effect be produced upon the healthiness and longevity of fruit trees which have constantly been perpetuated by grafts and buds from parent trees, as is produced on animals by breeding in and in? In the latter case we know that the strain deteriorates, that hereditary diseases are perpetuated, and that the vigor of the offspring is not so great as by crossing the breed. It is true that no fruit-grower can calculate upon obtaining fruit from seedling trees of the same quality as the fruit from which the seed was obtained. But, on the other hand, he may, and often does, obtain at times, a still choicer kind. It is this element of uncertainty which has led to the practice of grafting and budding, and which seems to justify it. But would it not be well for some of our enterprising fruit growers to test the question of the greater vigor and longevity of seedling trees? By exercising the principle of selection they might still obtain very choice varieties of fruit.

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**CORK.**—It may not be generally known that cork is not indigenous, but is the soft, elastic bark of a species of oak that grows abundantly in the southern part of France, Spain and Italy. When the tree is fifteen years old the barking is commenced, and is repeated at intervals of eight years, the bark improving with every operation. The cork is stripped from the tree in July and August; it is then piled up in water under heavy stones to flatten it, after which it is fire-dried and packed in bales for exportation. The cork-cutters divide the sheets of cork in narrow strips, and after cutting them the proper length round them with a thin, sharp-bladed knife into a cylindrical form. Spanish black is prepared from the burned parings of cork; and suberic acid is obtained from it by the long-continued action of nitric acid. The cork-tree and the uses of its bark were known to the Greeks and Romans.—*Harper.*

### Why Farmers Should be Thoroughly Organized.

The following we extract from a very able address delivered before the Minnesota Agricultural Society at the State Fair, Sep. 30, 1868, by Col. D. A. Robertson, of St. Paul, Minnesota:

With the exception of husbandry, every money-making interest, in this our age of money, is thoroughly organized, and ever ready for aggressive or defensive action, as the occasion may require, whether in legislative halls, in boards of direction, or in the market place.

Our farmers are the most important working population of the country and produce three-fourths of its productive wealth. Out of their toil and products are directly or indirectly obtained, most of the taxes and yet they are at the mercy of all other interests. A projected measure that would transfer millions from the profits of agriculture into other's hands may be resolved upon by half a dozen wealthy gentlemen, of elegant enterprise, seated in a private parlor or around a board of direction, without exciting any more concern among our farmers than if the subject matter related to China or Japan.

The reason is our farming populations are cut up into isolated fragments, and are beaten in detail, in politics and in every thing else.

Such facts as have been adduced show the importance and necessity of organized societies of farmers, and like new order, the Patrons of Husbandry, with frequent meetings and wide extended fraternity, for collecting and disseminating valuable information, and for mutual instruction and defence. Unlike the rural peasantry of Europe, our farmers own the land they cultivate. They are capitalists, freeholders, citizens and rulers of the state and nation. They are, or ought to be, men of thought, reading and useful knowledge, as well as of manual work.

All other interests are armed and constantly on a war footing. Among the powerful nations of Europe, when one arms, all must arm. So it is in all communities. When every interest is cared for, when every interest is prepared for defense, all are cared for. Then there is justice, equity, peace and prosperity for all.

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**HASHEESH**, or *hashish* as the orientals call it, has long been an important article of Eastern commerce, and more than one brilliant pen has described its magical effects upon the imagination. The temporary extacies it has communicated to millions of poor mortals have been a thousandfold counterbalanced by the prostration, mental and physical, that inevitably follows the practice of using it. As the Chinese government strove desperately at one time to check the importation of opium, so does the Viceroy of Egypt now prohibit the use of *hasheesh* under the severest penalties. He is a sensible and progressive prince.

## Our Agricultural Calendar.

### Farm Work for May.

All the work of this month is that of steady persistent labor. The oats have long since been seeded, and by this time should be well up. Both wheat and oats have been seeded down to grass, and the clover fields of the past year are now taking a rapid start. Where the winter grain is thin a light top-dressing should have been given to it, and if this precaution has not yet been taken it may still be done. Of course the fences are in good condition, or ought to be made so, and if this work has been accomplished the entire energies of the farmer can be devoted to the preparation for, and the planting of corn. This crop, the most important of any that is grown in the spring, demands, and should receive special attention. It is the money crop of the season, and enters generally so largely into the year's account of profit and loss that no pains should be spared in the preparation of the soil, and in its subsequent cultivation. Heavy manuring, except in very fertile soils, is one of the first conditions requisite to a large yield, but much also depends upon thorough culture. An article in another column gives all the necessary information in regard to the nature of the soil that is best adapted to corn, and gives the organic and inorganic constituents whose presence in the soil is essential to the vigorous growth of this grand cereal. The general work of the month is as follows:

#### Planting of Corn.

An article, to be found elsewhere in this number of the *Farmer*, will furnish many of the essential particulars in regard to the cultivation of corn. We recapitulate briefly the following points:

*As to Soil.*—The best soil an alluvial, light and rich, the next best a rich sandy loam, abounding in potash or the phosphates, with a good supply also of soluble vegetable matter. An old grass lay liberally manured, deeply ploughed and the furrows turned flat constitutes an admirable seed bed for corn, as the fermentation of the decaying roots and grasses quickens the growth of the plant in its earlier stages, whilst the large amount of plant food disengaged maintains it in full vigor throughout the growing season.

*Preparation.*—Plough deep and evenly, harrow and cross harrow in loamy soil until the whole surface is as light as an ash heap. Lay off the rows four feet by four or three by four, according to the quality of the soil. Stir the soil frequently throughout the season never allowing the surface to bake, but keeping it open to air and light and moisture up to the time of tasseling. Let no weeds cumber

the ground, and allow no more plants to the hill than the land can bring to the highest perfection. On level lands cultivate by the flat method, or in making hills leave them broad and flat at the top and slightly dish-shaped to catch and utilize the rains. On hillsides liable to wash, plant lengthwise of the hill, allowing the surplus water to pass off by a slope so gradual as to prevent washing.

#### OATS.

Oats may yet be planted up to the 10th of this month if the production of some sort of a crop even at this late date should be thought advisable. But the best season of planting has long since passed, and only a comparatively light crop can reasonably be expected.

#### MILLET.

If the crop of hay threatens to be light, either by reason of the grasses running out or from other causes, an additional supply of good provender may be obtained by planting millet. The objection to this grass, nutritive as it is, arises chiefly from the tendency of the seed to shatter whilst harvesting. It is nevertheless, in good soil, an excellent substitute for hay, is of quick growth, and will yield a heavier crop on land adapted to its growth than the best timothy meadow. Cattle of all kinds are fond of it, and whilst it stands drought well it is easily cured. The chief care in harvesting it is to handle it in such a manner as to prevent as much as possible the seed from shattering.

*The Soil for Millet.*—A deep sandy loam or alluvial is best adapted to the growth of millet. But any rich soil which is not too tenacious will grow a good crop.

*Time of Sowing.*—Early in May.

*Quantity of Seed to the Acre.*—For hay, sow one bushel of seed; for hay and seed, sow half a bushel to the acre.

*Time of Harvest.*—Commence harvesting as soon as the seed begins to turn yellow.

*Mode of Curing.*—Same as clover.

#### Canteleupes, Musk and Water Melons.

Plant these in hills heavily manured as early in the month as possible. Plant each patch at a considerable distance apart from the other or the pollen will mix and the fruit become worthless. For water melons let the hills be six feet apart; for canteleupes and musk melons four feet is a good distance.

#### Field Peas and Beans.

These should be planted early in the month.

#### Root Crops.

Carrots, parsnips, beets and mangold wurtzel should have been planted a month or six weeks earlier. They may, however, be still seeded with advantage. For the best mode of culture we refer to the April number of the *Farmer*.



**Broadcast Corn for Soiling.**

Corn seeded broadcast is one of the best forage crops for green soiling that can be grown. The land should be made very rich to give the plants a rapid start, for the quicker their growth the greater will be their succulence. It is a crop which under proper cultivation yields luxuriantly, and even if harvested for fodder, may be used in the winter season cut up and mixed a sprinkling of brownstuff or cornmeal with great advantage. Corn planting early in May on rich, light soil will be ready for the use of stock within two months from the time of planting.

**Sweet Potatoes.**

Get these in as early as possible.

**Harvesting Clover.**

Clover is best harvested when half the blossoms are turning brown. In this condition it makes the finest hay and does not exhaust the soil near so much as when it is permitted to form its seed.

## Garden Work for May.

The work to be done in the garden during this month is as follows:

*Watermelons, Canteleupes, Muskmelons, &c.*—The soil for these delicious fruits should be a light, rich loam. It should be deeply ploughed and made very fine and loose. The hills for Watermelons should be made not less than six feet apart, but Muskmelons and Canteleupes may be placed in hills from four to five feet apart. In planting be sure to plant each kind separately and at a distance from each other or they will mix and become worthless.

*Cymbilins—Squashes.*—Plant a small patch of Cymbilins in hills four feet apart during the early part of this month.

*Cucumbers*—Cucumber seed should now be planted in hills four feet apart. The soil should be very fine and loose, and the hills well manured.

*Sweet Potatoes.*—The best soil for Sweet Potatoes is a deep sandy loam, moderately rich naturally, or made so with manure. The best exposure is the facing to the south.

*Early Corn.*—Corn for roasting-ears should now be planted. If the garden has a southern exposure and is well protected from northern and northwest winds, Corn and tender vegetables may be planted two weeks earlier than in gardens that are open and exposed.

*Setting Out Cabbage Plants, Cauliflower and Broccoli.*—Set out these on a moist, cloudy day.—If the weather is fair and bright, see that the plants are shaded for a few days, and in dry weather water occasionally, after sunset.

*Garden Peas.*—Drill in a few rows of Garden Peas at intervals of two weeks for succession. The marrowfat is one of the best of the late kind.

*Bunch Beans.*—Plant Bunch Beans in drills for the main crop early in the month.

*Lima and Carolina Beans.*—Plant these in light, rich soil, and in hills six feet apart each way, making the hills broad and flat on the tops and slightly dish-shaped. In poling see that the poles are firmly set and stand out of the ground at least eight feet high.

*Celery.*—Celery plants which have been forwarded in hot beds may now be set out.

*Carrots, Parsnips, &c.*—If these have not already been planted, see that the work is done at once. For method of planting and management see "Farmer" for April.

*Spinach.*—The soil for Spinach ought to be very rich. Prepare a bed and plant the seed thinly in hills eighteen inches apart, or broadcast, and for a continuous supply sow at intervals of ten days during this month.

*Onions.*—Weed and thin out young onions so that the bulbs may stand three inches apart. Keep the soil clean and light, but do not cover the bulbs.

*Early Turnips.*—Thin out early turnips, or sow the seed for a crop at any time up to the 10th of the month.

*Peppers.*—Sow Peppers during the first week of the month in a bed prepared for them, and from which they can be pricked out subsequently and planted where they are to stand to ripen.

*Okra, Gumbo.*—Drill in as early as possible and in low moist rich ground, the seed necessary for the main crop of okra.

*Egg Plants—Tomatoes.*—Plants sown in a hot-bed may now be set out. If a bed in the open air has not yet been prepared, the work should be done at once, and the seed sown.

*Salsify or Vegetable Oyster.*—Drill in a few rows of this delicious vegetable. Let the soil be light, loose and rich, and avoid the use of long manure.

*Endives.*—Sow these for an early crop.

*Flower Seeds.*—Sow annual and biennial flower seed during the early part of this month.

*Watering.*—In dry seasons use water freely, but always of an evening, and after the sun goes down.

A German pomologist asserts that young pear trees with smooth and red twigs will furnish juicy and well flavored fruit; while rough, green shoots indicate a mealy, dry and tasteless article. With apples, rough branches indicate sour; smooth branches, sweet fruit.

Agriculture is both a science and art, requiring both an educated head and a skillful hand.

FOR THE MARYLAND FARMER.

## NOTES AND COMMENTARIES.

BY PATUXENT PLANTER.

Yankee ingenuity sometimes outwits itself.—Dealers in garden, field and flower seeds, sometimes so advertise their seeds as to cast the suspicion of “humbuggery” upon the articles they desire to sell, and the farmer is afraid to buy. As an instance of one of the many tricks of trade, the “*Bates Early Bronze Field Corn*,” is advertised by an extensive seed dealer in New York, word for word as advertised by the largest seed dealer in Boston, both closing with this paragraph. “The favorable reports, together with the good impressions received on visiting Mr. Bates’ corn-crib, have induced me to secure the entire stock; and we now offer it in large or small quantities at \$1 per quart; \$12 per bushel.” Each one, the man in Boston and he of New York claim to have bought the “entire stock.” Now, which one is the farmer to believe—which one has the true corn? How comes it that each should have precisely the same advertisement in the same words, even to the dotting of an I, or crossing a T. It is evident both did not buy the *entire* stock each for himself. Hence a man disposed to buy, on seeing one advertisement would hesitate when the other appeared, for it does not have the look of fair dealing on its face.

## POTATO MANIA

Is on the increase. It is as bad as the “Merino” or “Morus Multicaulis” speculation. The idea that potatoes should be selling for \$80 per bushel, and a single tuber for \$60, as is reported, is preposterous. The “Early Rose” is certainly entitled to the credit of first starting this extravagant mania for “far fetched and dear bought,” in the potato line. I tried a pound last year, it certainly was very productive, equal or surpassing the Harrison, and in beauty of form, smoothness, and uniformity of size far surpassing any potato I ever raised, and last year I had 17 varieties, 12 of which were imported Patterson seedlings. It is the earliest potato that I know, but it is not large, only a fair size. It is not a first-rate eating potato, though as good as any or most of the new sorts, better than the “Goodrich.” None of them came near the old “Mercer” and the true “Carter.” The *Orono* and Patterson’s “Blue Scotch” are the best eating potatoes of the new sorts, both cooking dry and white and mealy—they both roast well which is the severest test for a potato just out of the ground. The *Orono* has a sugary flavor. Not one is worth intrinsically half or a fourth what is asked for them. These enormous prices tempt the dishonest to impose upon a credulous public a spurious article for the “Simon Pure.”

I suppose the best now for sale at high prices are the Early Rose, *Orono*, and Quaker Fancy for early, and the Carter, Goodrich, and Harrison for winter; the two last for sale, and the Carter for home consumption being the best, but not so saleable, not being so much of the exclusive fashionable. Potatoes are a good paying crop if 60 to 75 cents per lb. can be realized nett. Below that price I do not think they pay. The great desideratum in potato culture is a good potato digger or gatherer. Where is there one to be had? Do you know? Such of our manufacturers as have such an implement, which has been tested and fully tried by practical farmers, ought to advertise it, for the public information. The planting and working of this crop is not much, but the gathering and preparing for market is very tedious, slow and laborious—at a time, too, when the weather is variable, often too wet to do such work and the days are at their shortest.—Any implement therefore that would much facilitate the work would be a blessing to those, especially, who grow potatoes in places where casual or day-labor is not to be had at any price. Horses mow and make hay, why cannot there be machines invented, by means of which horses can dig and pick up potatoes, if not bag them as they do wheat, &c.

## Mixed Husbandry and Small Farms.

It is cheering to see by the Agricultural Journals in our State and the South, that small farms are generally advocated, and mixed crops advised, and partially as a system adopted. In a newspaper of Georgia it is said that some farmers who formerly cultivated fifty acres in cotton and made fifty bales, now cultivate less than twenty, and yet make fifty bales, because they work the smaller quantity better and make it rich—so that with less than half the labor they cultivate enough land to yield them as much crop. So it will be found in growing tobacco, corn, &c. &c. The true system for re-invigorating the soil in all the planting States and reconstructing the fortunes of the people is to work small farms, manure highly, give good tillage, and have mixed crops with fruits of every variety; at the same time have more grass. Cultivate the growth of the grasses as a crop, and keep stock to eat the grass both green and dry, the stock will pay back to the lard in manure, and pay in meat, butter, and work, the owners. Fruits must always pay well either in the fresh state, or dried or canned. He who doubts this proposition will doubt no longer if he will read the mercantile fruit statistics. The demand is always equal to the supply, and the demand both at home and far away abroad is daily increasing. So too with vegetables.

In connexion with this subject, I hope I may be permitted to repeat by way of advice for the benefit of our own people as well as our Southern friends



—to whom my heart yearns with sympathizing filial regard—these truthful though homely lines from the French :

“Cultivate little, but cultivate well,  
Your crops alternate, if good produce you'd sell;  
Your soil manure often—the return it yields  
Will tenfold repay what you spend on your fields.  
Sow grass, too, at times, if you wish to make sure  
Of having a plentiful stock of manure,  
Without grass you've no cattle—without cattle 'tis plain,  
You'll have no manure, and without manure no grain.”

#### Association of Farmers.

Why cannot farmers in each county or congressional district form an association upon the principles of “Building Associations,” for their mutual protection and profit. In such an enterprise the rural capitalist would find a very lucrative field for investment, and the farmer of small means could be put in a position to increase his crops and increase the annual value of his property. Capital could be had by which his many acres of land now idle and waste, could be made to yield heavy crops, or with this capital, invested in stock, these acres would yield a good return in being grassed, and become richer each year. He could well afford to pay ten or twenty per cent on his loan to this association of which he was a member, for he could at its termination, say five years or more, be the recipient of its gains. The capitalist would be getting this large bonus on his funds so invested and his security be each year advanced in value. Many a man who has 400 acres of good land, is involved to the amount of half he owns, and it must be sacrificed at half its value, without he can borrow and go still deeper in debt, to realize the means of properly managing this land so as to make it yield its utmost capacity. This cannot in most cases be accomplished, for country capital seeks the towns or U. S. Bonds, and town-capital will not be invested in the country except at ruinous interest or in purchases which are made at half the actual value of the property.—Whereas if this man could go to a county association, concentrate his debts, and get enough to hire a sufficient number of laborers, buy teams, seeds, fertilizers, stock, &c., he could afford to pay a high rate of interest in which he eventually was to be a sharer, and thus having the means to make his farm produce the largest amount possible, he would when the mortgage fell due, be able to liquidate it. If by unforeseen circumstances he failed, and his property became forfeited to the association he would still be a recipient of the gains of the association on its final winding up after his indebtedness was paid.

At present, in all the former slave country, our people are laboring under a monetary pressure or a state of affairs by which the few that are rich or out of debt are becoming richer every day while the poor are becoming poorer. The National Government has from its necessities during the loan, become to the people what in Jackson's day the United

States Bank was fast becoming, a great monied monopoly, which in the end would swallow up all the capital and place the great masses of working people, small farmers, tradesmen, mechanics, and laborers at its mercy and the mercy of the rich who held its stock and its notes. Now, to be at the mercy of a monied power is to be placed *no where*, for who ever knew money to flow from a corporation or a combination of wealth. Men who have money to invest will not loan on mortgage at even ten or twelve per cent., preferring to buy Government Bonds at 7-30 in gold, to getting a higher rate of interest with the chance that they may be forced to foreclose the mortgage, which would be inconvenient and unpleasant. The responsibility and unpleasantness of this procedure on the part of an association would not be felt, it being acted upon and agreed to by the very mortgager himself, he being one of the society. Unless some such societies are formed for mutual help, and sustenance under our peculiar difficulties, there is no hope for those much involved in debt, until our national debt be paid or repudiated, (the last none wish) and until then the poor who are in debt must grow poorer, and the rich become richer. There never was a time when Agriculture paid better than now, if the man who pursues it is free from debt, and on the other hand never was there a time when farmers who are much involved, make so little clear from farming. The nett profits are nothing to him who is on the borrow, but are large for him who has money ahead of his yearly wants. The credit system is nearly abolished (in the end it will be a great blessing to the whole people) and men cannot now get along in procuring absolute necessities of life, as they did when the Monster bank in 1837 put forth its power and applied its screws to the people, in its expiring agonies, to wring from them a consent to a renewal of its life for a few years longer. Then the credit system sustained the agriculturists—the Banks suspended specie payments but loaned their notes freely at legal interest, but now credit is gone, and Banks are no use to farmers, they have literally become stock jobbers, money brokers, and get the highest rate of interest they can under one or another evasion of the requirements of their Charters, and of the laws of the States. Another great difficulty under which the farmer labors is, there is not sufficient banking capital in the country to meet the wants of the people in trade, and what there is is locked up in New York and other great centres of trade and wealthy population.

THREE bushels of sifted coal-ashes mixed with two of gas lime and made into stiff mortar with gas tar, spread on a level bed of small stones, well rammed down—produce the best pavement for a stable.

## CULTIVATION OF LARGE LATE INDIAN CORN.

*To the Editors of the Maryland Farmer :*

I sent you a short communication last autumn relative to my practice of selecting seed corn from the field, which you kindly published in the September number. Those who did not take advantage of the hint given, and have yet in store, or can procure select ears, I advise them to choose the largest and best formed ears, having reference to perfection of cob and grains; cut or shell about one and a half inches off either end of the ears; the centre grains are those only that will produce the most satisfactory result. Soak the corn in brine a few hours. (The best brine for the purpose is that after beef or pork is removed, because it contains in addition to salt, nitre, blood, etc.) Drain through a sieve and roll in gypsum, dry ashes, or air slacked lime previous to planting. If a drill machine is used, dry the corn simply in dry sand, otherwise the drill cylinder and brush will clog, and the seed fall irregularly. If planted by hand or a machine allow the grains to stand about six inches apart.

Land plowed in November or during the winter will not be infested with grub worms. If plowed in the spring, sow about five bushels of salt per acre previous to harrowing, which will not only improve the fertility of the land, but destroy every worm it touches.

If crows are numerous, and when the corn is planted, sow broadcast per acre one peck of corn previously soaked a few hours in coal oil.

*Horizontal Cultivation.*—After the land is cross-plowed in the spring, and thoroughly harrowed—(but to digress, the best harrow for light land, that I have used, is the circular or rotary; it, however, requires one-third additional power to draw it, but pulverizes the land as thoroughly by one crossing as the common drag will do it by two. For heavy clay land, and land inclined to clod, the best implement of the kind that I have seen is the combined harrow. The frame made angular, in the rear is attached to a wooden roller frame, and roller studded with sabre shaped cutters, the cutters in the roller striking between those in the frame. I purchased one about fifteen years since from a plow maker in Harrisburg, Pa., where I suppose they are yet to be had)—mark off shallow furrows five feet apart, running north and south, strew the corn in them as previously described, cover with a cultivator (the centre tine removed,) and follow with a roller to break clods and compress the soil on the seed. I am no believer in the theory that a walking horse can travel farther in a day than a Dexter can trot, and decidedly recommend the corn drill, by the use of which three-fourths of the time will be saved in planting, and the work done with accuracy and

perfection. When corn is about eight inches high, run a narrow one horse barring plow on either side, as near the corn as possible, throwing the soil from it for the admission of air, heat and wet, and to destroy grass that may be vegetating near the corn. Now, if you please, make a mixture of one part gypsum and four parts wood ashes; strew it on the plants by hand, as fast as a man can walk, at the same time thin out the plants to stand 12 or 15 inches apart, the former distance if the land is highly manured, and has in it an abundance of organic matter. When the plants are about four feet high, and the soil sufficiently dry, gear up two strong horses or three mules to a heavy broad breasted two-horse plow; run the furrows as deep as possible on either side of the corn, lapping to and up to it. The next process is to run the same plow by about furrows in the centre of each row of corn, (the largest size double mould board plow will do the work equally well and in half the time.) In running out these furrows, slight ridges will be formed, leaving between them and the broad furrows thrown up to the corn a narrow interval that need not be touched by the harrow or cultivator till it is found necessary to cultivate the crop by the appearance of foul vegetation, or by wet followed by a hot summer sun, causing a crust to form on the surface. The latter process will break down obstructions and form oval shaped beds, the corn rows on the apex. When heavy rains occur, the rich particles will flow into those centre furrows, forming a rich, wet deposit, and, in the event of drought, sustenance for the crop. The tender fibrous corn roots will find the source of supply as certainly as a thirsty horse will find a spring of water in a strange pasture. No subsequent cultivation will be necessary, except to keep down grass and weeds and the surface broken to prevent firing or the effect of a protracted drought.

It is the custom of some farmers in Maryland, and south of it, to plant one row of corn and two rows of potatoes, alternately, the rows running east and west—a good plan I think—it leaves the corn open and the potato crop shaded from the noonday sun. Lands that are much infested with weeds ought to be cultivated on the zig-zag or quincunx order, which is fully described in the last November number of your admirably conducted journal. By that mode of planting the barring and hilling process is performed only in the horizontal direction, the hills averaging  $4\frac{1}{2}$  feet apart, thrown up by a broad breasted one horse plow, the centre ridge split by a shovel plow, leaving broad oval ridges with water furrows in the centre of each row of corn.

The previous and subsequent management of the crop is similar to horizontal cultivation. The stalks of early corn such as the Yellow Dutton, White Mandan, Tuscarora and other eastern sorts, may



stand three in a hill, drills in proportion. As corn requires acclimating, farmers in the latitude of South Maryland, who wish to grow an average crop, should not plant seed grown south of Philadelphia.

Those who advocate level cultivation, I suppose, confine themselves to the barring plow and cultivator, or the cultivator alone. I have not alluded to the advantage of deepening and pulverizing the subsoil, but I think any practical, scientific or thinking farmer will admit the correctness of the practice. We are told that wheat roots extend down four feet and corn double that distance, if so, it appears obvious that the subsoil plow is a valuable adjunct to the agricultural interest.

*Harvesting.*—It is now generally conceded that the best manner of harvesting corn is to cut it off at the roots when matured, placing the corn and fodder in large shocks on convenient parts of the field. The shucking can be done at leisure times, during the fall or winter months, the only risk being from thieving bipeds, quadrupeds and crows. The land not occupied by corn shocks may be prepared and set in wheat, and the occupied strips prepared in the spring for oats, barley or millet, and the entire field set in clover or grass seed, followed by the drag harrow and roller. To render corn fodder and stalks most profitable, they ought to be cut by a horse power cutting machine, the cut stalk steamed or ground previous to being mixed with mill feed. Farmers who possess the common barrel corn and cob crusher can grind cut stalks by mixing one-third with two-thirds of corn and cob, which mixed with a small portion of rye or corn chop, is eaten greedily by stock.

In our lamented CALVERT's time, there was on exhibition a horse power cylindrical straw cutter, constructed to cut and grind corn stalks. The grinding was done by an iron cylinder and concave set immediately under the knives, and studded with sharp angular teeth. If your manufacturers have those cylinders and concaves, they can no doubt be attached, and at a trifling expense.

PLOWMAN.

**THE HESSIAN FLY ON SEED WHEAT.**—The editor of the *Entomologist* thus replies to a correspondent from Baltimore: You say that you believe that the Hessian Fly lays its eggs upon the seed wheat, and that it can therefore be destroyed by a pickle. There are two broods of this insect every year, one coming out in the fly state in May, the other late in August, and neither brood of flies living more than a few weeks. How then is it possible for the female fly to lay her eggs upon seed wheat in harvest time, when there are no Hessian flies about in harvest time?—You might as well suppose that your corn-crib had been robbed by swallows in the middle of the winter.

## ABOUT BEANS.

In this neighborhood, during the war, when the price of "soup" Beans was high, many farmers turned their attention towards raising them, but it was found that the average of Pennsylvania soils was too heavy, or we should say, perhaps, too rich for this crop. There were too many leaves and too few beans. In poorer soils the facts are reversed; and yet in very poor soils they do no good at all. To speak chemically, a soil rich in organic matter is not very good, but it must be rich with mineral ingredients to have good beans.

It takes about two and a half to three bushels to sow an acre, and the yield in our Pennsylvania soil was from thirty to fifty bushels. They were sown in rows, about two feet apart, to admit horse culture. One difficulty found was from mildew. This was more prevalent in hot, dry seasons than others. The effect was to tint some of the beans, and then the crop had to be hand-picked by boys or women, which detracted very much from the profits. If even the mildew did not attack the growing plant, it often did the green beans amongst the ripe ones, after the stalk had been pulled up to dry.—There will generally be some green beans left on, or a few lingering ones late to ripen, and these give the trouble. To guard against this as much as possible, in pulling up the beans to dry, it is best to drive stakes into the ground in different parts of the field, and stack the beans up against the stakes—the roots towards the stakes, and the beans outside. The stakes of course are to keep the thin stacks from falling down. Perhaps it would be best to have the plants sorted as they are pulled up, and have the green beans pulled off. In the Eastern States they are not troubled as much with mildew; and thus, having less hand-sorting to do afterwards, can put them cheaper in the market, and this drove the attempt to grow beans in Pennsylvania to any extent out of the line of general farm crops.

It was found best, in many cases, not to stack them to dry at all, but to pull them in the morning as soon as the dew was off, and thrash them out the same day with the flail. We believe they are seldom thrashed out by machine, on account of so many seeds getting broken, which necessitates hand-picking; the great object with growers is to get good beans without hand-picking or sorting afterwards.

It is a great thing, in getting good prices for beans, to make them "look well." This is often done by running them through a machine used by coffee dealers to clean dirty coffee. It puts a polish on them, which makes them look superior to even the best Eastern bean that comes thus unaided into the market.—*Forney's Weekly Press.*

FOR THE MARYLAND FARMER.

## THOROUGH CULTURE.

As the season has returned in which the plowing for the spring and summer crops is to be performed, I desire once more to urge the importance, not only of deep and thorough tillage, but of endeavouring to till the land, especially, if it be tenacious, when it is neither *too wet nor too dry*.

The importance of this is not generally realized, and as a consequence, we see one farmer rushing his entire tillage force when the soil is so wet that water stands in the furrows, another deferring tillage until it becomes so hard and dry that the labor on both team and plowman is more than double what it would be when it is in the proper condition, and it is broken up in lumps which are nearly as unfit for a seed bed as the same bulk of stones would be.

The soil is more permanently injured by tilling when too wet than too dry, but the effect on the first crop will be about the same, greatly to diminish it, and greatly to increase the labor and cost of culture.

Soil plowed when either too wet, or too dry, will not fully recover its natural friability until thoroughly acted on by frost. Methinks I hear the reader, who has a soil of the character I have described to till, ask: How shall we get the land in a proper condition when it rains nearly every day? We would answer this very natural inquiry, by stating several methods by which such soils may be so changed in condition, and so managed that a state of suitableness for tillage may be secured, without which it would be impracticable.

First. Such soils should be plowed at times in winter when their condition is as near right as is practicable.

Second. They should be subsoiled and drained so that no water can stand in the surface soil.

Third. If they must be tilled before time and means can be spared for draining and subsoiling, they may be greatly improved by opening good, surface water-furrows, by which to remove as much of the superfluous water as possible.

Fourth. By embracing every opportunity that is offered for tilling when the condition of the soil is as nearly right as it may reasonably be expected to be.

The writer has closely observed for years, the effect of attention to this fourth recommendation, and has found that it is generally practicable to select times that very tenacious soils, and those that are naturally too wet, may be plowed in a condition that will not be injurious to either the land, or the crops.

But this cannot be effected except the farmer has a good degree of experience in tillage, and will

watch the condition of the soil, as the mariner does the weather.

Fifth. By tilling such lands in ridges say twenty feet in width, and keeping the open furrows well cleaned up.

The direction of the ridges should be such as to conduct away the surface water, but not so steep as to produce gullies in the open furrows.

This condition of wet, tenacious soils are greatly improved by applying in the furrows a liberal quantity of straw, just as it comes from the threshers. The effect is both mechanical and chemical, and the writer has seen an application of three tons of straw per acre add twenty-four bushels per acre to the yield. The corn crop is very greatly benefited on such lands, by even a small quantity of active compost, or concentrated fertilizer applied in the hills.

I sincerely hope that a goodly number of farmers, who have soils to till of the character that I have described, will not let the coming, or current season pass without testing one or more of the plans recommended; they are not merely plausible theories, but have given good satisfaction under a great variety of circumstances and in different parts of the country.

I would add in conclusion, that an equal degree of care should be exercised in harrowing, cultivating, and marking out prior to planting, and in cultivating the growing crops, that the soil may not be tilled when too wet, as the effect will be found very injurious.

J. WILKINSON,

L. G. and Rural Architect,

Baltimore, Md.

FOR THE MARYLAND FARMER.

## Recipe for Making Artificial Peruvian Guano.

No. 1. Dry, rich earth.....	20 Bushels.
2. Dry wood ashes.....	3 "
3. Horner's bone dust.....	3 "
4. Gypsum.....	3 "
5. Saltpetre.....	40 Pounds.
6. Sal. Ammonia.....	22 "
7. Carb. Ammonia.....	11 "
8. Glauber Salts.....	20 "
9. Epsom Salts.....	10 "
10. Common Salt.....	20 "

*Directions.*—Mix Nos. 5, 6, 7, 8, 9 and 10 in six pails of water, when dissolved mix and form in a concave bed Nos. 1, 2 and 3; pour in the former mixture and mix the mass thoroughly, then add No. 4, which will bring all to a dry state. Weight about one ton, cost \$25.

I have made and applied the above to my crops upwards of ten years, and in comparison to other mercantile mixtures (which cost double the sum) my mixture proved the most satisfactory. If not applied immediately after being made, pack in tight barrels or cover with pulverized charcoal. The chemicals can be had of any Baltimore wholesale druggist.

Yours,

R. S.



## DAVID DICKSON'S PLANTATION.

There is in Georgia, probably there is in America, no more successful planter than Mr. David Dickson, whose plantation of 15,000 acres is situated on the Little Ochogee river, about ten miles east of Sparta, in Hancock county.

To reach his plantation I traveled over a hilly country of mixed lands on which oaks, hickory and other deciduous trees were common, but where the prevailing growth was yellow pine. But just before reaching his plantation the hills sink, there are extensive plains, red clay is seldom seen, and the long leaved pine prevails. The plantation is a pine barren; not so barren as much of the pine land near the sea, but not nearly so fertile as the oak and hickory land further North, or the plains of South-western Georgia. Cast your eye over the fields.—You note particularly that their surfaces are quite smooth. You distinguish the rows of corn and cotton by the stalks only, and not by the high ridge made by plows and hoes, such as you see in almost every Southern field. They are perfectly clean too, no fringe of crab grass or other weeds covering the ground. The corn stalks are large and the cotton stalks very bushy and thickly covered with the dead pods or bolls. Near are some farm out-buildings and a cluster of very neat and comfortable negro quarters—the best I have seen in Georgia. Still there is little to excite remark in the appearance of things. There are good fences and gates, and it is evidently a tidy farm, but we have seen tidy farms elsewhere in Georgia.

The aim of this planter has been to increase the productive capacity of the land, first, and second to increase the productive capacity of the laborer. The accomplishment of the first has been effected by means of fertilizers, which make the land richer, and improved tillage, which makes the natural and acquired fertility of the soil more available. The second has been effected by new modes of planting and new implements. Ordinarily, in this country, fifteen acres of cotton and corn are cultivated to each hand. Before the war, Mr. Dickson cultivated thirty-three acres to the hand, and the slaves had no drivers. In this part of Georgia, an average crop of cotton is about one bale on four acres. Mr. Dickson raises commonly three bales on four acres. To be sure he expends large sums every year for manures, but these repay him one hundred per cent. on their cost, and the cost of the labor required to produce a bale of cotton, is comparatively very small by his system of culture.

The ground is planted in cotton but once in four years. It is succeeded by corn, and the third year grain. The fourth year the land lies fallow. The manures used for cotton are one hundred pounds

each of Peruvian guano, dissolved bones, salt and plaster—the whole costing, at present prices, about eleven dollars. The ground is plowed, not scratched, as has been the case with all the other plantations that I have seen. The dirt is turned up to the depth of seven, eight or nine inches, and the whole surface is broken up, the dead furrows being upon the ridges. Elsewhere the space between the rows forms a "land." The furrows for cotton rows are opened about eight inches deep, and four feet apart. The manure is deposited in the furrow, and covered with the plow. The seed furrow is then opened above it, and the cotton seed strewn thickly in it, many more plants being started than are permitted to remain. After they are finely started, spaces are cut in the row with a broad heavy hoe, leaving from one to three stalks to a hill. The plowing is done with what is called here a "sweep," a plow cutting twenty-two inches wide, formed of two narrow mould boards, very like our plow shares. This just scrapes the ground, cutting up all weeds, but not going deep enough to wound the cotton roots or open the light soil. It is hoed and plowed often enough to keep the ground perfectly clean. The more rapid the growth of the cotton, the less cultivation is required, for when the plants are tall, thick and bushy, they so shade the ground that weeds and grass can hardly live upon it. Three plowings and two hoeings sufficed last year for a remarkable field of cotton raised last year by Mr. Dickson, which averaged two bales to the acre.—Usually the hoe and plow are busy almost until cotton picking commences in September.

A Western farmer would smile at Mr. Dickson's corn fields. The rows are almost as wide as the streets in some old European towns. But it must be remembered that this is a very light soil and cannot bear many stalks, and by making the rows wide the sun reaches both sides of every plant. Mr. Dickson makes his rows for corn seven feet apart, with hills three feet apart in the rows, and then only one or two stalks to the hill. But all this space is not wasted, as a row of peas is planted between every two rows of corn, and these produce from five to fifteen bushels to the acre, and is equal to the average production of corn on unmanured land.

Mr. Dickson's experience is of course valuable, chiefly to the Southern planter. A general adoption of his methods would more than double the products of the country and the profits of the farmer.

Mr. Dickson says that he can pay his laborers one hundred and fifty dollars per year and make a slight profit by raising cotton at ten cents a pound, if the laborers are as orderly and efficient as they were before the war. But he sees no indication that they will become so. With law and order and a strict enforcement of contracts, he feels that he can make money by raising cotton—not otherwise.—*Cor. Cincinnati Commercial.*

## INDIAN CORN.

The corn planting season will soon be upon us, and no time should be lost in preparation of the ground; and in this previous preparation lies the secret of success. The soil should be ploughed, cross-ploughed, harrowed, and cross-harrowed until the ground is reduced to the finest possible tilth, and the surface made as mellow as an ash bank; but in planting, "*festina lente*" (make haste slowly), should be our motto, and yet a departure from this maxim is a fatal and common error. Wait until the ground is warm—and then the grain will sprout at once, and grow off without check until it reaches maturity. Many farmers, impatient to be done with their planting, are content with a hurried ploughing, and then commit the seed to a bed so cold as to destroy its vitality before it can sprout; or if it does come up, it is with such irregularity as to require replanting, and the plants, feeble, spindling, and yellow, like delicate, sickly infants, rarely reach a vigorous maturity. We remember an old gentleman in Maryland, the most successful corn-grower in his county, who was generally ten days behind his neighbours in getting his seed in. While they were striving to finish, the old fellow was giving his corn land an extra working, which theirs never got. His crop invariably matured as soon as theirs; and instead of being obliged, as they were, to do more or less replanting, he had, on the contrary, to thin out his crop. The ground being warm, the seed never rotted; nor did the crows and blackbirds annoy him, for he took care to give them their share upon the surface of the ground, and thus relieve them from the temptation to dig his planted grain. No directions of general application can be given for the selection of seed corn, because of variations in soil and climate, and because, in spite of the most careful selection, the corn will gradually, by hybridizing and other causes, assimilate itself to that cultivated in the neighborhood. The fact is, that though grains and vegetables may be bred to run into excess, as well as animals, in particular points and qualities, climate will not, after all, be forced to adopt what any curious experimentalist may choose to transplant from one region to another.—The large corn of the South cannot be forced upon the North, nor vice versa.

We remember a great excitement in Maryland, some thirty years ago, about Dutton Corn, of which it was said two crops might be made in a season.—We tried it on West River, and, in fact, had it ground in ninety days after planting; but it soon run out. The two best varieties in Maryland at that day were the Baden and the old-fashioned, large eared Gourd seed. The Baden would give as many as sixteen moderate-sized sound ears to the hill, and

the gourd seed but two. The objection to the first—if objection it was—was the labor of shucking;—to the latter, the size of the cob, which was too long in drying. We tried both these valuable varieties in the Blue Ridge of Virginia, but they soon lost their distinctive character. Since then we content ourselves with selecting our seed while still standing in the field, seeking early maturity and heavy grain on a small cob.

We remember on one occasion, in Prince George County, Maryland, finding a stalk of corn in the roasting ear state, with its roots unbroken, but washed bare by a night of deluging rain. These roots were as numerous as the hairs on a horse's tail, and full four feet long! If this fact does not prove the necessity for deep and thorough preparation of the corn ground prior to planting, and the absurdity of "laying by" the crop with the plough, nothing that we can write will. As for cutting tops and pulling fodder and hilling, these are practices of the dark ages, and the sooner they become obsolete the better.—*Turf, Field and Farm.*

## Sowing Grass Seed.

"A good mixture of grasses for hay, and the proper quantity for one acre, on soils of medium dryness is the following:

Red Clover.....	8 lbs. or 4 qts.
Herds grass, or timothy.....	8 qts.
Red-top.....	1 bushel

"In some instances clover is sown chiefly as an improver of the soil, and it is best under these circumstances to sow no grass seeds with it, but to increase the quantity of clover seed to twelve or fourteen pounds to the acre. Where the land is unfavorable to clover, that seed should be omitted, and herds grass increased to twelve quarts and the red-top to five pecks to the acre. Clover, being biennial, dies out more or less after the first year, and the space it occupied is filled by the other grasses.

For pastures on soils of medium quality and tolerable dryness, the following mixture has been found to succeed well:

Red clover.....	2 qts.
White clover.....	2 qts.
Kentucky blue grass.....	2 qts.
Red-top.....	2 pks.
Herds grass.....	1 bushel.

"The red clover should be omitted on wet land, and the red top increased."—SANFORD HOWARD, in *Boston Cultivator*.

THE *Germantown Telegraph* says the best way to prepare hen manure for use is to mix it with soil half-and half, and keep it till wanted. It suits the corn crop, onion crop, etc., and may be applied in the hill or as a top dressing after the plants are up.

WORTH REMEMBERING.—Four pounds of salt pork, cut fine, and put into a barrel of cider when first from the press, will prevent it from ever turning sour. So it is said.



## HOME-MADE FERTILIZERS.

Prof. James Higgins, of the Maryland Agricultural College, (late State chemist) recently delivered before the Anne Arundel County Agricultural Society a lecture on the subject of home-made fertilizers, from which we extract the following. It will be found of interest to most of our readers:

Concentrated Fertilizers now comprise almost exclusively Peruvian Guano, Bone Dust, and various Phosphatic Guanos, valuable for the Phosphate of Lime contained in them. From these latter are manufactured in greater or less purity the class of manures known as "Super Phosphates." I will not detain you with the peculiar and distinctive qualities and composition of the various Phosphatic Guanos that are now sold in our markets, nor with the composition of the "Super Phosphates," some of them such only in name; my end, aim and purpose is to give you such practical instruction as will enable you to prepare for yourselves a *cheap* and *efficient* manure, one vastly superior to the average of those sold in our markets, and at much less cost. No expensive machinery or implements are required and no more skill than is requisite to mix clay to fill in a house, or the mortar used in the plainest building. I say this with the knowledge of the facts. Many persons now make their own Super Phosphates and at a cost justifying what I have said, after giving a liberal allowance for labor. When I inform you that some of the best *looking Super Phosphates* "so called," that have been sold in our markets contained by actual weight eighty-seven per cent. of sand, were sold at sixty-five dollars per ton (2000 lbs.) in large quantities, and between this and those which are made in good faith and with good and proper materials there are regular gradations, you must know how liable you are to obtain an impure article, even if the experience of many of you has not already given you proof of the fact.

This much as to the *purity* of the Super Phosphates that you buy—now as to *their cost*. This is from fifty-five to sixty dollars per ton, *freight* not included. I now speak of that which claims to be nothing more than Super Phosphates, not the "Ammoniated" articles which are sold at a higher figure. I know that I am within bounds, when I say that five hundred lbs. of oil of vitriol costing less than four cents per lb. and one ton (2000 lbs.) of Navassa Guano costing twenty dollars, to which should be added say five hundred lbs. of common salt, costing about \$3.75, when properly mixed will make a better Super Phosphate than the average of those which you buy. Consider that for about forty-four or at most forty-five dollars, you prepare for yourself one ton and a half of manure, that if you purchase already manufactured, you have to pay for at the rate of fifty-five dollars per ton. These figures may not be exactly correct, as the price of the articles which I have named, are subject to some variations, but of this be certain, that by *manufacturing for yourselves you can always assuredly save more than twenty dollars per ton*. If you purchase bone dust, your home-made Super Phosphate will cost you more, but then you will get a better article.—The same is true of a Phosphate of Lime made of finely ground antediluvian bones from South Carolina, of which large quantities are now offered for sale in Baltimore. It is true that you are liable to purchase an inferior article of Phosphatic Guano or

of Bone Dust, but the danger of loss in this respect is not so great as when you purchase the "Super Phosphate" already manufactured by the dealers in this manure. There are not the same temptations to adulterate the raw material as the manufactured article, and these adulterations are more readily detected.

The quantity of acid to be used when bone dust is to be converted into Super Phosphate of Lime is, in round numbers, twenty-nine pounds to the one hundred pounds of bones. This quantity would convert all the Bone Phosphate of Lime, into Biphosphate of Lime, but much observation has led me to doubt if this be the most economical quantity in practice, and I would therefore recommend that a less quantity than this be used, say from four to five hundred pounds of acid to the ton of Bone dust. It is true that this is not sufficient to make all the Bone Phosphate of Lime a Super Phosphate of Lime, some will remain undecomposed, but this will more slowly become soluble by the action of water in the soil impregnated, as it necessarily must be, with carbonic acid and by the presence of ammoniacal salts, present in all soils, and in greater quantities where Peruvian Guano has been drilled with the seed at the time of sowing than elsewhere.

The bone dust not acted on by the sulphuric acid will thus afford a supply to plants in the latter stages of their growth, and, if not all consumed by the crop to which it is applied, will be in most fit state and condition to benefit succeeding crops.

If the Navassa Guano be used, from four to five hundred pounds of common salt should be *well mixed* with it before the acid is applied. If you gentlemen possessed any certain means of ascertaining the composition of the different Guanos sold in our market without having the analysis made for yourselves, I would give you precise directions as to the quantity of acid to be applied to each in order to render them soluble as super phosphates; in the absence of this knowledge, you should use from four to five hundred pounds of the acid to the ton (2000 lbs.) of Bone Dust or Phosphatic Guano. In the selection of this Guano (if you cannot or will not use the Bone Dust,) take every *possible* precaution to purchase that which contains as little of the Carbonate of Lime (air-slaked lime) as possible.—When the Guano contains this, your acid will be expended in converting this into the Sulphate of Lime (which can easily, as you know, be cheaply purchased in the markets) before it begins to form the Super phosphate of Lime; the substance which you are desirous of making.

So far as to the substances required to make a Super phosphate. I now propose to give you plain and precise directions for handling and mixing the substances of which it is made. If there be any doubt as to the directions or any want of clearness in the way in which I have given them, I will, with pleasure, give every additional information in my power if applied to in person or by letter at the Md. Agricultural College.

*Materials to be Used.*—Bone Dust finely ground one ton (2000 lbs.); Oil of Vitriol four hundred pounds. Take the Bone Dust and place it two or three heaps on the floor of a Tobacco House, Barn or Shed, any place where the rain will not fall on it, and moisten the Bone Dust with water until it is quite damp. Then take the Sulphuric Acid (oil of vitriol) and pour it on the Bone Dust. As soon as this is done, the heaps should be well stirred with a wooden shovel or paddle. As soon as the acid is

applied, a good deal of heat will be produced, and watery vapor will fly off from the heap. The heap should be well stirred every day for about a week, and then suffered to remain until it is wanted for use. It then should be again two or three times well stirred; and if there be any lumps or pasty masses in it, these should be mashed with a hammer or in any convenient way, and be reduced to as fine a state as possible. From exposure to the air and by the heat generated by the application of the acid, the mass will be dry enough, (if made for a few weeks) to be handled and applied broad cast to the soil.

If it should be too damp to be well applied, then mix with it some dry sand, wheat chaff, corn bran, sawdust or some such substance, but *not* ashes, nor lime nor plaster.

Should Bone Dust be unattainable then procure some of the Phosphatic Guanos, but the supply of Columbian and Mexican, the best of this class, are almost, if not entirely, exhausted. You may therefore procure the Navassa Guano, which can be had for eighteen or twenty dollars per ton, and of this Guano the great majority of the Super Phosphates have been made, and for which you have been paying at the rate of fifty-five and sixty dollars per ton.

Take one ton of it (2000 lbs.), mix intimately with five or six hundred pounds of salt, then treat it as you have been directed to treat the bone dust, *i. e.* add slowly and cautiously from four to five hundred lbs. of the oil of vitriol, first moistening the mass, stirring it well so as to make in uniform and thorough mixture, and you will have a Super phosphate at the cost of less than thirty dollars per ton, at least equal to many of those for which you have been paying from fifty to sixty dollars per ton, and very much superior to some of them. Be not discouraged if you do not succeed in making a *good looking* article at first, if you comply with the directions given, you will make a *good* article. You will have your Phosphate of Lime in a *soluble* condition, and that is the *end* and *aim* of making a Super phosphate.

When the Super Phosphate of Lime is applied to the soil, the first rain dissolves it and distributes it thoroughly in the soil, where meeting with particles of lime in the condition of airslacked lime, it unites with it forming again Bone Phosphate of Lime, but in such a state of division as to be readily soluble by agencies acting on it in soils. The finer the state of division the more thoroughly a manure can be mixed with the soil and the greater will be its efficacy; and be certain of this that in this first respect the finest ground bear no manures comparable with the Super Phosphate of Lime. Instead of putting your Bone Dust or Guano in a heap, you may mix it in a wooden trough like a cider trough, or if you have a tough strong clay, dig a hollow pit in it, and apply the acid as I have directed. Be careful in handling the acid, as it will burn the flesh or destroy the clothes, when it comes in contact with them. It can be poured from the carboys, which it is brought in, to any kind of crockery vessel having a handle for convenience, and thus be used without any fear or injury.

I know of persons in the State, the best and most successful of our farmers, who have been making their own Super phosphate for years with entirely satisfactory results, and at a cost, *labor included*, not greater than that which I have mentioned. *Use no other substances with your super-phosphates other than those I have mentioned.* To your grainery ap-

ply your Super Phosphate of Lime *broad cast* and *drill* in with your grain from seventy-five to one hundred pounds of good Peruvian Guano. To your corn and tobacco a small quantity of Peruvian Guano in the hill, not more than fifty pounds to the acre, with the Super phosphate broad cast on the land.

By doing as I have mentioned, you will have a manure equal to the best that is now sold and at a far less cost. Again I say, be not discouraged at any *seeming* want of success in your first attempt, for it will be more in *appearance* than reality; but persevere. In the end you will come out right, and reap the reward of your labor in your crops and improved land; in the greater certainty of using a finer manure, at far less cost, than you now employ. Again I say, that if any difficulties present themselves in your manufacture, I will, with pleasure, afford you all of the assistance in my power.

#### How to Make a Thick Osage Hedge.

Considerable anxiety is now being manifested hereabouts by many farmers in regard to *fences*.—Fencing material of all kinds, as well as fire-wood, is steadily growing scarcer and dearer. Fences on every hand decaying must be renewed in some way; and, driven by necessity, farmers are gradually planting Osage orange and honey locust hedges.—Many have tried white willow, but generally failed to make a fence, either through want of knowledge of how to manage it, or *neglect*, or both. We have some Osage hedges in this country fifteen years old and there is no winter-killing; they are generally on sandy, gravelly ground, with a porous or dry subsoil.

I want to tell your readers how to grow or train the Osage so as to make a tight fence that will stop pigs, chickens, and even rabbits to a great extent. Set the plants eight or ten inches apart; cultivate well the first season. In the fall mulch it well to prevent winter-killing. This mulch will keep the weeds down, with a little attention, for the next two years, and will also give a vigorous growth to the hedge. After three years' growth in hedge-row, plow a deep furrow two and a half or three feet from the hedge with landside of plow next the hedge, and have two men, one with a shovel, the other with buck mitts and thick boots to bend (not cut) the hedge and tramp it to a horizontal position, or level with the ground diagonally with the line of hedge. Tramp the tops in the furrow, and throw dirt on them to hold them in position, leaving two and a half or three feet of the base uncovered.—Thus treated they will send up from ten to twenty vigorous sprouts from each plant. This being done in April, the latter part of June clip it within six inches of base of sprouts. The September 'following clip it six inches higher, and continue the clipping semi-annually until your hedge gets the desired height, and it will be two or three feet thick at base and impassable to man or brute.—*Ger. Telegraph.*



**BROOM CORN—Its Successful Cultivation.**

1. It is important that the ground should be good. It ought to be as fresh as you would want for Indian corn. It should be well broken, and, if harrowed, is all the better for it.

2. Plant the seed in the spring (not too early), when the ground is warm and in good condition.

3. Rows should be three and a half feet apart, and the seed should be drilled. One stalk of corn should be left, if too thick in the row, six inches apart.

4. Cultivate well—all depends upon good cultivation. I always cultivate in the same manner as Indian corn, and never permit any weeds to grow.

5. Cut when the seed on the stalk are in the milk. One hand should go ahead and "table," to be followed by the cutters. One hand will table for four or five cutters.

6. *Tabling*.—This consists in bending the stalks of two rows diagonally across each other, about two feet from the ground. The brush projects beyond the row, and is then cut and laid on the table, thus formed, to dry. The third row is then cut and laid on the same table; by this means the "wagon-row" is cut—that is, a wagon-row to every six rows. I will explain: a, b, c, d, e, f, represent six rows; a and b, e and f, are table rows; c is cut and placed upon the table of a and b; d is cut and placed upon the table rows of e and f. It is easy to see that c and d are wagon-rows, with a table on each side, convenient for loading into the wagon.

7. *Cutting*.—If the brush is large, six inches of stalk should be left to it; but to the small brush much more—say eight to twelve inches. Knives should be procured with good handles, and kept sharp.

8. Threshing the seed off is the next thing. A cylinder of wood, twelve inches long and ten inches in diameter must be provided. It should be of solid wood. Into this, iron or steel spikes should be driven, two inches apart, with three left outside the cylinder. This is propelled by horse-power; but, for very large crops, I recommend steam power.—Machines are now manufactured, greatly improved, for this very purpose, and can be purchased somewhere East.

9. *Curing*.—Sheds must be provided for this purpose, so that the corn can be perfectly protected from the sun and rain. I put my corn in racks eight inches apart, leaving abundance of space for free ventilation.

10. The yield is from four hundred to eight hundred pounds to the acre, the latter figure being a large yield.

11. Baling is done in a hay press. The brush should be laid straight, with care, and the bale may be fastened by wire or hoop poles.

12. The cost of cultivation is just equal to that of Indian corn until it is ready to cut. The cutting, hauling and threshing requires eight men per day for each acre of corn, besides two teams and one wagon. This includes putting it away on the racks for curing. The cost of baling is just double that of baling hay.

13. I would advise those going into the business of broom corn raising, to begin on five or ten acres for initiation.—*Colman's Rural World*.

**Practical Questions on Farming.**

There are not a few matters in practical farming which are unsettled. These our farmers ought to endeavour to determine by experiments carefully conducted.

Just now we are asking one another what is the best time to sow Plaster upon Clover. Some say, before the plant begins to grow, in order to give it a good start. Others prefer to wait until some leaves are formed, believing that at this period the effect of the Plaster will be greatest.

In *Johnston's Agricultural Chemistry*, I find the following table of the effects of Plaster sowed on Clover at different periods in the spring.

Top-dressed	30th March	—produced	132 lbs.
"	13th April	"	140 lbs.
"	27th "	"	156 lbs.

The effects of a top dressing of Plaster seems, therefore, to be greatest when it is applied after the leaves have been pretty well developed."

Now, what I would suggest is, that our farmers seek to verify or disprove this authority, by sowing some part of our land early, and some part late, observing closely what difference, if any, there will be in the effect.

The same with reference to the different methods of applying Plaster to Corn—in the bill at the time of planting, and to Corn after it has come up.—*Cor. Lexington, (Va.) Gazette*.

**BEAUTIFUL AND TRUE.**—"Education does not commence with the alphabet. It begins with a mother's look—with a father's smiles of approbation, or sign of reproof—with a sister's gentle pressure of the hand, or a brother's noble act of forbearance—with a handful of flowers in green and daisy meadows—with birds' nests admired but not touched—with creeping ants, and almost impossible emmets—with humming bees and glass bee hives—with pleasant walks in shady lanes, and with thoughts directed in sweet and kindly tones, and words to mature to acts of benevolence, to deeds of virtue, and to the source of all good, to God himself."

It is absurd to talk of soils of inexhaustible fertility. There are no soils so rich but bad management may exhaust them.

## The Poultry House.

### POULTRY CHIPS.

ONE cause of hens laying soft-shelled eggs is roosting on high perches. We have often noticed that the hen was never satisfied unless she could place herself on the top pole, this being the height of her ambition. In the morning, instead of jumping to the next roost below, and so on, in order to get down by degrees, she would almost invariably jump the whole distance, hitting herself against the sides of the building or striking hard upon the floor. Some of the oldest and fattest of the hens would not come down all the day for fear of hurting themselves, and occasionally eggs will be found broken, and soft eggs under the nests dropped from the roosts by the hen.

HEN lice may be destroyed by oiling the heads and necks of the hens with kerosene; but to save trouble and labor, let your hens have room enough and all manner of dust to wallow and bathe in. A sprinkling of strong ley or kerosene on their roosts and sleeping room, nest boxes, etc., will positively kill lice with which it comes in contact. This should be applied two or three times in a year.

THOUGH most farmers keep fowls, and raise their own eggs, there are many who have not learned the difference there is in the richness and flavor of eggs produced by well-fed hens, and those from birds that have been half-starved through our winters. There will be some difference in the size, but far more in the quality. The yolk of one would be large, fine colored, and of good subsistence, and the albumen or white, clear and pure; while the contents of the other will be watery and meagre, as in the parent fowl to properly carry out and complete the work nature had sketched. In order, therefore, to have good eggs, the fowls should be well fed, and also provided during the months they are unable to come to the ground, with a box containing an abundance of fine gravel, that they may be able to grind and prepare their food for digestion. Of eggs, those from the domestic hen, are decidedly the best; but those of ducks and geese may be used for some of the purposes of domestic cookery.

IN well fed fowls the difference will be seen not only in the size and flesh of the fowls, but in the weight and goodness of the eggs; two of which go farther into domestic uses than three from hens poorly fed.

It is best to entrust the management of fowls to some trusty person, who can be depended on; and

no other person, except the keeper, whom the fowls know, and the voice and sight of whom rejoice them, must go into the hen-house, for fear of scaring or disturbing the hens while busied in laying.

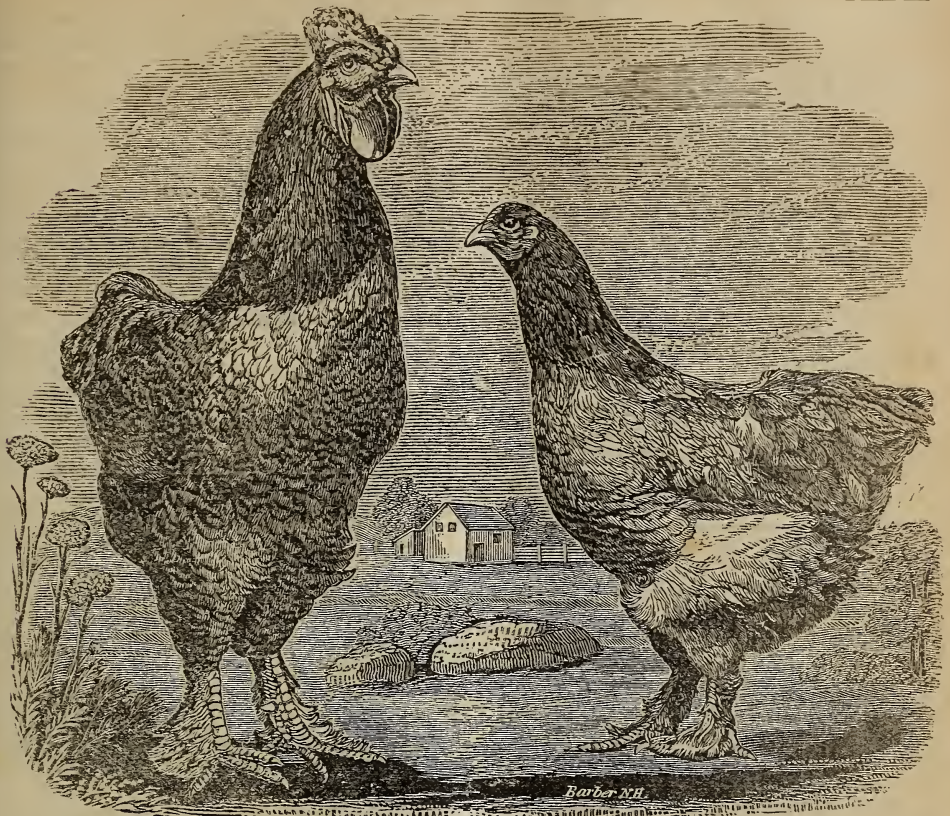
CHICKENS will neither require nor be benefited by feeding unless the chicks have been taken from the nests very early in the morning, when a little bread soaked in milk may be placed before them, or their beaks gently dipped in it. The favorite applications of some persons, of warm beer, pepper corn, and other stimulants, are worse than nothing, excepting only where matters are really going hard with the little ones, and some stimulants become absolutely necessary. Nature, it would seem, provides a sufficiency of nutriment in the yolk of the egg taken up by the chick previously to quitting the shell, to last for the twenty-four hours after its exit. We have never seen food pressed upon them during this period with advantage; nor do we believe it at all necessary or desirable to force the appetite, which is sure to make itself known at a sufficiently early period.

ONE reason why the turkey, seen in our poultry-yards, do not vie in splendor of plumage with their untamed brethren, is that we do not let them live long enough. For the same causes we seldom witness the thorough development of their temper and disposition. A creature that does not attain its full growth till its fifth or sixth year, we kill at least in the second, to the evident deterioration of our stock. But let three or four well selected turkeys be retained to their really adult state, and well fed meanwhile, and they will quite recompense their keeper by their beauty in full plumage, by their gleaming hues of gilded green and purple, their lovely shades of brown, bronze and black, and the pearly lustre that radiates from their polished feathers.

THE proper persons, or those who generally understand rearing poultry, are females, who, accustomed from their infancy to look after the poultry, are acquainted with every particular of rearing, the different processes it requires, and the attentions which circumstances compel them to bring forward.  
—C. N. Bement, in *Country Gentleman*.

CREVE COUR FOWLS.—The hens are low on the legs, with large fleshy thighs and large square body. They walk slowly, scratch but little, and seldom fly. They carry on their head a large tuft of feathers and a small upright two horned comb, whilst a large cravat of feathers under the neck give them matronly air. They ramble but little, and are good layers of large white eggs. Cocks are similar in form to the hen, both of a brilliant black color.—They have a tuft and cravat of feathers, and handsome pendant wattles. They mature early, and are ready for the table at three months. Their flesh is not excelled by any other fowl known.—C. P. Nettleton's *Circular*.





Life Portraits of Buff Cochins, owned by C. P. Nettleton, Birmingham, Conn. Bred from Imported Stock.

DESCRIPTION.—The Cochin China cock is a bold, upright bird, with single erect comb, bold eye, face red, legs yellow and well feathered to the toes. The hens have most points in common with the cock, comb small, face has a very intelligent look. They are very domestic, can be confined in any yard with a fence four feet high, and always carry a look of contentment. Their flesh is very yellow, tender and juicy.

#### Some Doctrinal Points About Plants.

In the *Gardener's Monthly*, the editor lays down these ten articles of faith in regard to the habits and nature of plants. They are so plain, and, we truly believe, incontrovertible, that we are not willing our readers should not have the benefit of them:

1st. That plants do not lie dormant or hybernate in the winter.

2d. That a plant must maintain heat to retain its vitality through winter.

3d. That to circulate heat through its system in winter to prevent its parts from freezing it can only do so through the medium of moisture.

4th. That the dryer element invariably abstracts from the moisture. The atmosphere sets moisture from the plant in winter as well as in summer, in proportion to its dryness.

5th. The dryness of the atmosphere is usually in proportion to the lowness of the temperature.

6th. The more rapidly a dry surface is made to pass over a moister one the greater is the loss by the latter.

7th. There can be no vitality without a waste of heat.

8th. There can be no waste of heat in living things without a waste of moisture.

9th. To supply this waste, moisture must be drawn into the plants all through winter, even though the roots be encased in frost.

10th. When evaporation goes on faster than the capacity of the roots to supply it, death must ensue.

MANGERS should be low, and stables well ventilated and well lighted. Many horses are made blind by being kept in the dark.

# THE MARYLAND FARMER

AT \$1.50 PER ANNUM,  
PUBLISHED ON THE 1ST OF EACH MONTH,  
BY  
**S. SANDS MILLS & CO.**  
No. 24 South Calvert Street.  
CORNER OF MERCER,  
**BALTIMORE.**

S. SANDS MILLS, } PUBLISHERS AND PROPRIETORS.  
E. WHITMAN, }

**BALTIMORE, MAY 1, 1869.**

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OFFICIAL VISIT TO THE STATE AGRICULTURAL AND MECHANICAL GROUNDS.—Governor Bowie and Messrs. Wm. Devries, John Merryman, Wm. H. Jillard and Joseph H. Rieman, the committee appointed to improve the property recently purchased, visited the grounds on Monday April 12th. They were accompanied by Charles Wheatley, Esq., secretary of the American Jockey Club, Jerome Park, and general manager of the Jerome and Saratoga race tracks.—Mr. Wheatley came from New York at the request of the committee, for the purpose of advising as to the improvements contemplated. The committee were also accompanied by Gen. Elliott and E. Law Rogers, Esq. An examination of the property was made, and the location of the track determined upon. The track will be oblong, the stretch on each side being one-fourth of a mile, and each turn the same length, being the most approved plan for a track for speed. Mr. Wheatley estimates that at an outlay of seventy-five thousand dollars Pimlico can be made for the purposes of the association equal to any grounds in this country. The committee look to the citizens of Baltimore to come forward at once, and by liberal subscription, justify them in taking the necessary steps to improve the property, as the first Fair of the Association is to be held in the last week of October next.

## MARYLAND AGRICULTURAL AND MECHANICAL ASSOCIATION.

A special meeting of the Executive Committee of the Association was held at their Rooms early last month, and the business transacted indicates that our State is to be favored with a display in October next that will surpass any thing ever held in this country. Among the gentlemen present were, Wm. Devries, president, Gov. Bowie, John Merryman, Col. Edward Wilkins, Gen. Edward Shriver, E. G. Ulery, E. Law Rogers, N. B. Worthington, Ezra Whitman, B. H. Waring, secretary, and others.

The President stated that in accordance with a previous resolution, application had been made to the Baltimore City Councils to amend the resolution appropriating to the Association \$25,000, in order that the money could be made available, the former act conflicting with the appropriation made by the State of \$25,000. The importance of the matter was fully appreciated by the members of the Council, and he had pleasure in stating that a resolution had been adopted by which the city's appropriation of \$25,000 would be applied, in connection with the State fund, for the grounds and buildings for the Society at Pimlico.

A committee, consisting of Wm. Devries, Gen. Shriver, and E. Whitman, was appointed to prepare By-Laws, Rules and Regulations for the government of the association, with instructions to report at an early day.

A communication from the City Trustees was read, from which the following extract is made:

"To enable the society to begin their operations with the least possible delay, and to assure you of our willing co-operation, we have appointed one of our number, Mr. Wm. H. Jillard, to act in conjunction with any committee you may appoint to make the necessary improvements and further the interests of the association."

On motion of Governor Bowie, the secretary was instructed to inform the city trustees of the reception and acceptance of their proposition.

Col. Wilkins offered the following resolution, which was adopted:

"Resolved, That a committee, consisting of Wm. Devries, Governor Bowie and John Merryman be appointed to make the necessary improvements in connection with a committee of one each from the city trustees and citizen subscribers."

Gov. Bowie offered the following resolution which was adopted:

"Resolved, That Messrs. Henry M. Warfield, G. W. Gail, George Snail, B. F. Loney, Lewis Myers, and Moses Wiesenfeld, be added to the committee to secure subscriptions from the citizens of Baltimore upon the terms of appropriation made by the mayor



and city council of Baltimore, and that Joseph H. Rieman, Esq., be and is hereby, requested to act with the committee representing the association and city in making the improvements at the fair grounds."

On motion of Mr. Merryman, the proposition of F. B. Loney to locate at the fair grounds one of their Sampson scales was accepted, and the secretary was directed to issue a certificate for the value of the same at the proper time.

On motion of Mr. Merryman, it was resolved that the president appoint a committee of five to prepare a premium list and name the judges for the coming exhibition, and report the same to the Executive Committee at their meeting on the first Tuesday in June. The president stated that he would announce the committee at an early day. The meeting then adjourned.

THE GREAT HORSE SHOW—HEAVY PREMIUMS.—We learn from the *Herald and Torch*, that the Great Horse Show, under the management of the Washington County Agricultural Association, will take place on Tuesday, Wednesday, and Thursday, May 25th, 26th and 27th, at Hagerstown. Premiums amounting to \$1000 will be offered, among which is one of \$300 to the fastest horse, who must make the mile inside of three minutes, as well as numerous other premiums from \$100 down. On Saturday last the committee let to Mr. M. Barry the contract for re-grading the Horse Track, the work to commence immediately, and thoroughly completed for the great Show. It is confidently believed that when thus improved it will be the best track in the State. The Committee also offer one premium of \$50 and two premiums of \$25 each for the best Velocipedists. Invitations will be extended to parties all over the country to compete for the premiums.

HEIFER AND BULL CALVES.—A correspondent at Washington, D. C., writing on this subject, gives the following secret for producing heifer or bull calves:

"I will tell you a secret about the sex of calves, so that people can have more heifer calves to sell and not so many bulls. If a heifer calf is wanted, let the bull to the cow before she is milked; if a male calf is wanted, let the bull to the cow after she is milked. The proper way to manage a bull is never to let him loose to wander about and break down fences, get lost, &c., but to either keep him up to serve cows, evening and morning, or as a pair of cattle are a useful article on a farm, yoke him to another steer and work them kindly, and thereby keep under control and make him earn his keeping."

The roots of the grape vine can not be kept too dry.

## WEEVIL, MIDGE, &c.

MEADOW WOODS, S. C., March 14, 1869.

To the Editors of the *Maryland Farmer*:

I read with considerable interest an article in your March No. on the subject of Weevils. The writer makes some very pertinent suggestions.—There is no doubt of the fact that insects injurious to agriculture are becoming more abundant and widely diffused. The introduction of foreign seeds and plants has doubtless had a great deal to do with it. While the ignorance, even of the most intelligent of our farmers, is so great on the subject of entomology that they do not know their friends from their enemies. I have seen good people most industriously playing havoc with the "Lady-bug" because it was playing the mischief with their vegetables. Nearly all insects have their parasites who follow them to destroy them, but for this wise and beautiful provision of Providence we would be able to enjoy very little of the fruit of our labours. We need very much, practical lessons in entomology—we ought to know things by their right names, and be able to give at least intelligible descriptions of pests.

Now, as to this weevil—we want a little light.—We have seen very often in old rye or wheat a true weevil, (black he is called—maybe brown.) He is not apt to trouble new wheat. Is he the same as the Pea weevil (*Burhus Pisi*), I think not. As a prevention I have used lime dusted amongst the wheat with uniform success. Again, we have a small orange colored moth which hatches out, when the wheat is housed, in large numbers, leaving the grain half consumed. Is this the midge?

Again—I have seen a very small black shining insect crawling over and through the grain after it was threshed. What are they? And I have seen white grubs with a dark reddish black head (forceps) among the grain. What are these?

I merely, as Jeremy Diddler would say, ask these questions for information—and by way of provocatives to a subject becoming daily more and more important. Can't you give us a little light? X.

[We request a reply to the above from some one of our correspondents. In the meantime we would advise our friends who feel an interest in entomology to subscribe for the *American Entomologist*, which treats exclusively on that subject. Published by R. P. Studley & Co., St. Louis, Mo., at \$1.00 per year.]

MANY tillers of English soil, besides paying heavy rents, support large families on the products of six acres of land. In Germany, two acres is sometimes "enough."

THE COMMISSIONER OF AGRICULTURE.—We heartily endorse the following deserved tribute to a faithful public officer—a very rare thing in these times—from the editor of the *Germantown Telegraph*. If we had influence with the appointing power, the Colonel would be sure of retaining his place, that is if he wanted it. We pray the powers may *Grant* us this boon.

“The Hon. Horace Capron, the Commissioner of Agriculture, who has been in office for over a year, has given universal satisfaction, inasmuch as we have yet to hear for the first time a word of complaint against the manner in which he has conducted the affairs of the office—an office so important, if well administered, to the farming interests of the country. He is clearly well adapted to the position, and in accepting it he gained probably nothing to his pecuniary advantage. From the fact that he occupies the place with the consent of everybody we have no idea that he will be removed, or that there is the slightest intention to do so. Give him a reasonable opportunity, and he will, from his just conceptions of what is best adapted to the welfare of our agriculture, do much to promote it.”

AGRICULTURAL PAPERS.—A subscriber at Augusta, Georgia, in writing us, enclosing names of new subscribers, concludes his letter as follows:

“As I feel a deep interest in the advancement of all kinds of knowledge, I will try and send you some additional subscribers. The people of the South have much to learn, and I wish I had the time and money to spare, I would canvass my entire State for not only your magazine, but for dozens of other useful papers, and, if possible, crowd out the dozens of *trashy* pictorals and other weeklies, &c., that flood the United States. Why, one well conducted paper like yours, and others like it, are worth a hundred of the ‘catch penny’s’ that our people almost devour.”

RECEIPTS OF COTTON.—The receipts of cotton at the port of Baltimore by water, for the week ending on Saturday, April 10th, were seven hundred and seven bales. Of that quantity one hundred and thirty-six bales were from Norfolk, nine bales were from Richmond, seventeen bales were from Wilmington, North Carolina, one hundred and eighty-seven bales were from Charleston, two hundred and fifty-eight bales were from Savannah, and one hundred bales were from New Orleans.

LICE appear to be generally in greatest numbers on animals that are in poor and filthy condition; therefore, to remove them, great attention should be paid to cleanliness. Many different remedies may be used which will effectually destroy these insects. A decoction of tobacco, about two drachms to a pint of water may be used with advantage.

#### Directions for Packing and Shipping Truck.

T. H. Burgess & Co., of Baltimore, furnishes the *North Carolina Farmer* with the following directions for packing and shipping truck:

“Ship all green berries in crates made for the purpose: it is a saving, as they arrive in good order. Ship tomatoes, peaches, pears and quinces in bushel slat boxes. Ship all other fruits and vegetables in flour or other barrels, with bagging top, and inch auger holes in sides and bottom of barrels.—Fill barrels full as possible before covering, to prevent too much settling, and have contents uniform—not topped off for show—it injures sales; and that brand is avoided by buyers after first purchase. Mark packages plainly on top and side, and also put owners’ initials in corner, and where from. It saves trouble in marking, and mistakes in transshipping by the use of it. It also facilitates delivery of goods on arrival. Send bill of lading by mail immediately on shipping, and state whether freight is pre-paid or not; also give instructions as to how returns are to be made.

Inferior stock in neat packages commands better prices than good stock in rough, unsightly ones; but good stock in neat packages will always command highest market prices, and that brand will be sought after by all buyers.

Peach and tomato boxes, suitable for this market, should be made to hold one bushel—the outside dimensions of which are as follows: Length 24 inches; width 15 inches; depth  $9\frac{3}{4}$  inches. The ends and middle division should be made of  $\frac{3}{4}$ -inch stuff, and sides, top and bottom, of  $\frac{3}{8}$ -inch slats. Finish off neatly and mark with stencil on both ends.”

THE TOBACCO MARKET.—The most cheering sight we have seen for a long time, says the *Danville Times*, is the large quantity of tobacco which is coming into Danville. The streets are blocked up with wagons from all the surrounding country.—The warehouses are crowded with the weed. The oldest inhabitants say they never saw so much tobacco come at any time. We hope it will continue to seek this market, as we are confident the planters can do as well here as anywhere.

WHEAT AND FRUIT CROPS IN MONTGOMERY COUNTY.—From every section of the county, says the *Rockville Sentinel*, we have gratifying accounts of the promising appearance of the growing wheat. It is improving wonderfully, and will yield an abundant harvest if no enemy should hereafter attack and damage it. It is also thought that the fruit has escaped material injury from the hard weather to which it has been subjected for some time past. At least an average yield may be calculated on, should it meet with no future mishap.



## The Dairy.

### PRACTICAL BUTTER MAKING.

To the Editors of the Maryland Farmer :

With your permission, I will offer to the readers of the *Maryland Farmer* a few practical hints on butter making.

The first great essential in butter making is cleanliness. The milk house, spring house, cellar, or whatever the place in which milk is kept, should be clean and sweet in every particular. The walls should be white washed at least every three weeks, and the arrangements for ventilation should be such as will give, whenever desired, full, free ingress to fresh air. Pure, sweet air, is absolutely necessary to the making of pure, sweet butter. The milk pans must also be kept perfectly clean. This can be done only by regular and frequent washing, rinsing, scalding and scouring. Skimming of the cream, is the next point of importance. It should be done with great care; taking as little of the milk with it as possible. The purer the cream, the better the butter will be and the easier the churning. The cream should be skimmed, at the farthest, at thirty-six hours from the time it is drawn from the cow. If left a longer time, the cream assumes a strong taste, which spoils the flavor of the butter. Besides this, it is more difficult to churn.

The temperature of the cream is also very important, and should receive the dairy-woman's close attention, if she wishes to save herself a large outlay of time and labor. From fifty-five degrees to sixty degrees, is about the proper temperature. If below this, the buttery particles do not separate readily, and if above it, the color and consistency of the butter are all injured. When the butter begins to form, the dashes should be moved slowly back and forth in order to prevent the butter from closing too rapidly, while at the same time it gives every particle of cream a chance to furnish its quota of butter.

Where, in the winter season, but few cows are kept, and it is not convenient to have the milk room slightly warmed, as is usually done in large dairies, it is advisable to place the cream by the stove, keeping it well stirred, so that the temperature may be the same throughout the entire quantity. A thermometer should be regarded as an indispensable appendage to every dairy. Where a thermometer is not convenient, the proper temperature of the cream may be pretty closely determined by testing it with the finger. It should feel not quite so warm as new milk.

Upon the proper working of butter depends much of its superiority. Machines for the purpose have been invented; but where the quantity to be worked

is not large, the butter spoon or ladle will answer every purpose. So long as a drop of milk, however minute, oozes from the mass when cut down with the spoon, so long should the working be continued.

There is no fixed rule for salting butter; some preferring more, and some less salt. An ounce of salt to the pound is the quantity generally used.—After the salt has been worked in, the butter should be allowed to stand twenty-four hours, and then worked again. By this second working, it is not only rendered more solid and compact, but the salt is more thoroughly incorporated, the streaks are avoided, and the butter will keep sweet a longer time. It should never be worked in a warm room, if you would avoid oily, streaked butter, that will become rancid in a very short time.

Some butter makers, in very cold weather, take the milk fresh from the cow, and heat it almost to the boiling point, before putting it away to its proper place, for the cream to rise.

My practice is, to stand the new milk in the milk room at once, and on the *following* day place it on or about the stove until it is about as warm as new milk. It is then returned to the milk room again, and the result on the following morning is a fine, thick, rich cream, almost equal to early fall cream, which is always thicker and richer than that of any period of the year. The cream from milk treated in this manner is easily churned, and yields fine solid butter.

Cream should not stand long before churning.—This however, will, to a certain extent, depend upon the number of cows. Where there are but two or three, churning is a slow process, and unless great care is observed in gathering, good butter will not be had. The cream should be kept in a cool, sweet place, and should be stirred every day at least once until ready for churning. It should never, under any circumstances, stand longer than a week. I prefer to make two small churnings of three days gathering each, rather than one large one of a week.

I think it more profitable to use the cream while it is fresh and good for table purposes. For cooking, fresh cream is better than butter, and infinitely cheaper and better than butter that is made from ten or twelve days gathering. Such butter is usually white and soft and without a particle of good butter taste about it.

Many persons practice washing their butter in cold water immediately after it is taken from the churn. I cannot commend the method, because I believe it takes from it that peculiar flavor which belongs to butter worked and salted, without the use of water. There are circumstances under which however, butter cannot well be made without the use of cold water. For instance, where there is no spring or milk house, or cool cellar. Where such

is the case, the cream should, in warm weather, be placed in a vessel of cold water during the night, and the churning performed early the following morning while it is cool. When the churning is completed the butter should be taken from the churn and placed in a vessel of *clean, cold, soft* water. The water should be changed until the mass becomes solid. It should then be taken out, worked well and salted.

To make good butter requires more than ordinary care and attention. Everything should move on with the regularity of the sun. To make butter profitable great care must be exercised in milking the cows. To milk clean is important. It not only adds to the quantity of butter, but it saves the cow from positive injury.

A JERSEYMAN.

*Burlington Co., N. J. April 4th, 1869.*

**THE BEST FORM OF DRAIN TILES.**—For many years, drain tiles were made in the form of a letter U inverted and placed on a board in the bottom of the ditch. But experiments proved that "pipe tiles" were better than the "horse-shoe" tiles, made like the letter U. But still farther experiments showed that those tiles having an orifice similar to the form of an egg, standing on the small end, are preferable.

Mr. Mechi, of England, testifies that the drains he put down twenty-four years ago are every one yet perfect, and he calls attention to the experience in drainage upon the estate of Sir Robert Peel (in the neighborhood of Birmingham, the place of meeting,) by which the superiority of small pipes over tiles laid upon soles was clearly shown. The soil contains iron, and the tile drains, laid with soles, making a flat bottom to the channel, and causing the stream to be wide and shallow as well as slow, were soon choked by an ochrey iron deposit. One inch round pipes were then put down, and these kept themselves free, and ran the ochrey deposit into the open ditches.—*Times.*

**THE FRUIT CROP.**—A note from a nurseryman to the *Baltimore Sun*, dated Brooklyn, Anne Arundel county, Maryland, April 16, 1869, says: "I have watched, from day to day, the different accounts from the fruit growers. I have observed carefully the effects of the late frosts on the buds, and I consider there is plenty of uninjured buds left yet to make a good crop, and of the late kinds of peaches a great many are not injured at all. Other fruits are at present all good. I speak, of course, for us here."

A SMALL or moderate sized tree at the transplanting will usually be a large bearing tree sooner than a larger tree set out at the same time, and which is necessarily checked in growth by removal,

### The Vitality of Seeds.

As it may not be generally known that some kinds of seed are apt to lose their vegetative qualities much sooner than others, the following hints are subjoined as some rule for the gardener's government, provided the seed is carefully preserved, and not exposed to excess of heat, air, or dampness:

Parsnip, Rhubarb, and other light, scale-like seeds, cannot be safely trusted after they are a year old. Beans and Peas of different species, Capsicum, Carrot, Cress, Leek, Nasturtium, Okra, Onion, Salsify, Scorzonera, and small herb-seed in general, may be kept two years. Artichoke, Asparagus, Egg-plant, Endive, Feticus, Lettuce, Mustard, Parsley, Skirret, and Spinach-seed, may with care be preserved three years. Brocoli, Cauliflower, Cabbage, Celery, Kale, Radish, and Turnip-seed will keep four years, if properly attended to. Beet, Cucumber, Gourd, Melon, Pumpkin, and Squash; also Burnet, Chervil, and Sorrel-seed, have been known to grow freely when five, and even seven years old; but it is not prudent to venture seed in the garden, or any other place, when there are any apprehensions that any portion of it has lost its vitality by age, or in any other way.

In order to put such on their guard as many attempt to raise seed either for their own use or for the market, I would observe that great care is necessary; as it is an indubitable fact, that if seed of similar species be raised near each other, degeneracy will be the consequence. It is therefore difficult for any one man to raise all sorts of seed, good and true to their kind, in any one garden.

If roots of any kind become defective, they are unfit for seed, as the annexed fact will show. I once planted for seed some beautiful orange-colored roots of Carrots; but as they had been previously grown with some of a lemon-color, they produced seed of a mixed and spurious variety; and as this is not a solitary instance of degeneracy from the like cause, I have come to the conclusion that, as in the animal frame, so it is in the vegetable system—disorders frequently lie dormant from one generation to another, and at length break out with all their vigor. I would therefore advise seed-growers not to attempt to "bring a clean thing out of an unclean;" but if they find a mixture of varieties among their seed-roots, to reject the whole, or they will infallibly have spurious seed.—*Bridgeman.*

**THE CROPS IN TEXAS.**—Planters in all parts of Texas are actively engaged, says a Texas paper of the 10th April. Corn is generally planted, and a great deal of it is already up. A larger breadth of land will be put in cotton than any year since the war. The freedmen have generally gone to work, and there is less complaint of their idleness than usual.



## MEDITERRANEAN WHITE CHAFF WHEAT.

*(Triticum Vulgare.)*

A few suggestions regarding this valuable variety of wheat may not be out of place, as it is one of the oldest cultivated in the country, and has maintained itself longer than any other. The spikes of this wheat are four-cornered, compressed, plentifully awned and tough, not being easily broken. The spikelets are four-flowered, generally, but two or three developing their seeds. The color of the seed is red and amber, and the shape is oblong, ventricose and truncate; the grain farinaceous and rarely flinty. The outer palea is ventricose, truncate, acuminate, running to a sharp point or awn. The inner palea thin, ventricose, slightly truncate, ending in a truncated tooth. The heads shell readily if left to get over ripe.

This wheat is quite distinct from French White Chaff Mediterranean. The seeds of the Mediterranean White Chaff resemble white wheat grains, being short, oblong, and generally known as plump wheats. There is little doubt that it is a hybrid from the French White Chaff Mediterranean, as we know that wheat can be crossed, and cultivated so as to develop a white wheat from it. The former is doubtless a difficult wheat to hybridise with. It has not lost much of its original form or compactness, and has been known for two hundred years at least. Experience with this variety of wheat in this country, shows clearly how wheat can be made to degenerate by repeated sowing of inferior seed upon indifferent soil. The opposite process of selecting the largest and plumpest seed from a new or different soil, will restore it to its original wonderful productiveness.—Nothing in the whole pro-

vince of wheat culture has more to do with its success than the single matter of selecting seed. Farmers should always choose the very best for sowing. Tailings and poor wheat should always be rejected.

This Mediterranean White Chaff produces in Europe a thin, light straw, which hardens and grows stronger in this country. This is a common result with imported wheat. Nor is the transformation in the straw greater than in the seed itself. I have imported red seed wheat which none of our farmers would have sown, when first received. The grains were small and insignificant, shriveled and very dark. Yet in two seasons this seed yielded the finest quality of red wheat grown. It developed until the grain became three times its original size, the straw stiffened, the spikes gained in length, and the grain ripened a few days earlier each season. I believe that it matters not how long a wheat may have run down, if properly changed and hybridized it can be restored again to its original form and perfection.

The cultivation of the Mediterranean White Chaff has given general satisfaction wherever honestly cultivated.—And it has only degenerated when poor seed was sown, and upon soil which lacked the wheat producing proper-

ties. Under such circumstances it also became the victim of the army of insects which have infested many of the wheat growing regions. If changed from one soil to another, and the best seed selected, this wheat will be no less fruitful than it ever was. It is important to bear in mind that good seed will not avail much if the soil is not possessed with wheat producing materials enough to grow and perfect good, plump wheat. Many farmers have so robbed their soil that it is impossible to grow wheat. The salts have been taken away, and nothing done to restore them. When this is the case the best remedy is plenty of barnyard manure, or other wheat fertilizers. If manure is not plentiful enough, sow less wheat, and more grasses.—Feed more cattle and work every straw and blade and stalk into manure. The more manure, the more grass, and the more grass, the more fodder to work into manure.—And when you have plenty of manure to put on your soil there will be no trouble to raise abundant crops of wheat.

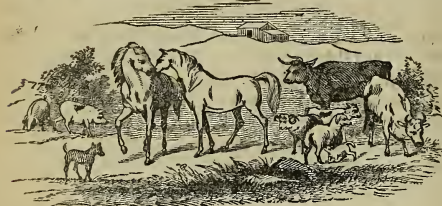
## The French White Chaff Mediterranean.

The French White Chaff Mediterranean, of which this is a correct representation, is distinct from most other varieties of wheat, and resembles the *Egilops ovata* more than any other winter wheat. It is believed to be a hybrid between the *Egilops ovata* and *Triticum*, and might be classed a French White Chaff *Triticum Vulgare*. It shows the cross very plainly. The spikes, glumes and awns are very similar to the *Egilops*, and being a very hardy wheat, it will stand re-sowing oftener than almost any wheat in cultivation. The grains are large, of a dark color, and each year of cultivation makes it produce a larger proportion of flour and less of bran. It endures a great deal of hard freezing, but the oftener it is re-sown the better the grain becomes for flour, and the less hardy. Unless changed from one soil to another it will soon exhaust itself in time as to yield but a very small crop. This wheat will hybridize more readily than many other varieties, and easily loses its beards or awns. The glumes stand apart, and the grains are very large, and generally push out over one-fourth their length beyond the glumes. If farmers having this variety of wheat, will look over their fields before harvest, they may find some splendid specimens growing among it, both awned and awnless. And it is a duty to collect all such heads as seem to be different from the rest, and sow them carefully, noting the results, and if any prove superior, to sow them again.

[We are indebted to "Deitz's Experimental Farm Journal," for the above cuts and description of the White Chaff and French White Chaff Mediterranean Wheat. It is devoted mainly to the discussion of the cereals, and is deserving the support of our farmers. Edited by Geo. A. Deitz, Chambersburg, Pa., at \$1.50 per annum.]



## Live Stock Register.



### THE HOG--HIS FAULTS, VIRTUES AND CLAIMS.

May we not be allowed to say something in favor of that much abused, but useful and valuable, animal, the hog!

The hog plays an important part in commerce, agriculture and domestic economy. He is a sort of citizen of the world. He thrives and multiplies in every part of the globe except the Polar regions.—The familiar burlesque of the "hog on ice," is enough of itself to demonstrate the unsuitableness of those regions to the hog. With this exception he can prosper everywhere. He is in his ubiquity like the herring, which is found in all waters. He does not rank high in the social scale, being considered, indeed, less of a gentleman in his habits than any of the animals. Like the elephant, the rhinoceros and the hippopotamus, he is addicted to wallowing in the mire. Naturalists tell us that he does this to destroy vermin, and to protect himself from the bites and stings of insects. This has been his habit from the earliest times, and will remain such as long as he continues on earth. "The sow that was washed returned to her wallowing in the mire." There is no reformation for him in this particular. Another of his peculiarities is his grunt. Another is that he carries straw in his mouth when it is about to rain. The hog has played an important part in religion, having been placed under the ban of two great religious sects—the Jews and Moslems. Their lawgivers and priests prohibited his flesh as an article of food. These two religions had their origin in the hot climates of the East, where swine's flesh was found to be unwholesome, and its prohibition was a sanitary measure.

There are wild hogs as there are wild horses and dogs. The historic wild boar, the Peccary and the African ground hog are some of the varieties. How and by whom the hog was first domesticated, we leave to the more curious to inquire. The hog finds his Paradise in Ireland, where he is tenderly adopted into the social circle. Every tenant raises a hog as he raises his children, and with that hog he pays his taxes. The Romans valued the hog, and

with all his uncleanness he was reckoned the fittest sacrifice to CERES, the Goddess of the harvest.

We read that Mr. Hog was introduced from Spain into Hispaniola by Columbus, in 1439; into Florida by De Soto, 1538; into Nova Scotia and New Foundland in 1553; into Canada in 1608, and into Virginia in 1609. It is related that here they multiplied so rapidly, that the colonists were compelled to palisade Jamestown to keep them out. Different breeds are preferred in different localities, according to the fancy of the farmer, facilities for raising, or the particular object of the raiser. The following are some of the varieties that have by turns been in most favor: the Chinese, the Neapolitan, (the most celebrated of the Italian breeds,) the Irish grazier, the Berkshire, the Cheshire, the Essex, the Woburn or Bedford breed sent to General WASHINGTON by the Duke of BEDFORD, (being a cross between the Chinese boar and the large English hog,) the Middlesex, the Chester, the Hampshire and the Suffolk, which last originated from the old Suffolk crossed with the Chinese and Berkshire. Without entering at length into the discussion as to the best breeds, we may say that there are hogs that seem to be capable of taking on more fat than others. After all said, written and done, the *corn-breed* hog that is supplied from the time he can crack corn to the time he falls under the knife, with as much corn as he can consume, he is the best of all. There is a wonderful correlation between the hog and Indian corn. We shall not undertake to describe the old-fashioned, unimproved Virginia porker which, having been left to roam at large and scuffle for itself, contracted a shape so strangely ludicrous and habits so wild, queer and perverse, as to be a notable curiosity. If we remember aright, this eccentric variety has been described at length by "MOSES ADAMS," in his learned lecture on "Bacon and Greens." We take occasion here to say, that if in aught we have said, or further say, we should trespass upon the demenes of that favorite author, it will be unwittingly done.

The fecundity of the hog family is one of the marvels of nature. That animal is capable of procreation at the early age of one year, an age at which the human infant can scarcely crawl, is without teeth, and is unable to express itself, and when the calf and the colt are still sustained by the mother. Mrs. Hog produces eight to twelve, and even more at a birth, and that twice a year. VAUBAN estimates the product of a single sow with only six young at a time, in ten generations, to be about six millions five hundred thousand, from which he deducts five hundred thousand on account of accidental death. The ease with which the hog is raised, his omnivorous appetite and his industry and self-reliance make him the cheapest of all animals to keep. To the



poor, he is, indeed, a precious boon. To "increase and multiply," seems to be regarded by the hog as his first duty.

The whole number of hogs in the United States in 1856 was put at forty millions, about a hog and a half for every man, woman and child of the then population. Valued at \$7 per head, the aggregate value would be \$280,000,000. What a country this for hogs and Indian corn! With them it will be easy to ward off starvation.

There is no part of the hog that cannot be utilized. His flesh, fat, bristles, hair, hoofs and bones are all turned to account. His very entrails are eaten.—The divisions into which his body are cut are as well known as the divisions of the earth—hams, shoulders, middlings, jowls! His ears and feet are made into souse, and his brains make a choice dish for the epicure. His tail has for ages been claimed by successive generations of children as their peculiar property. Tradition points out the way of cooking it—roasting on the coals—and of eating it without salt, and held in the fingers. Spare-ribs and chine! Is there a man with a heart in his bosom and teeth in his head who does not delight in them?

Some call the hog stupid. Stupid, indeed! His intelligence is of a high order, and his instincts are as sharp as—well, a razor or a briar, or a steel trap. His courage, when he gets his bristles up, and chooses to use his tusks, make him the terror of both men and dogs. He knows "a hawk from a hand-saw," and can tell his feeding time as well as if he carried a clock in his body. He is an early riser, and the familiar "c-h-o-a-r-k, c-h-o-a-r-k" of his feeder just at the peep o' day never fails to be answered. He never misses roll-call, though he cannot be called a soldier. A "hog in armor" is said to be the most ridiculous of all things. His sagacity in determining latitudes exceeds that of the most scientific men.

What would mankind do without the hog? He supplies food to millions. He is the great crop of the West. Those who are too distant from market to sell their grain and truck products feed them to the hogs, and then sell the hogs, thus killing two birds with one stone. Bread is called "the staff of life," the hog is life itself. The beauty in her silks and satins may turn from him in disgust as he emerges from his sty all reeking with mire, but she eats him, and enjoys him, too, when he appears on the table. It has been observed by those accustomed to cater for the public, that the favorite diet of ladies generally, however delicate and dainty, is *phoat*.

The hog is a mighty institution—a power in the land. In spite of his snout, of his bristles, of his grunt, of his foul habits and his perverse ways, the hog deserves to be held in high esteem; to be treated kindly while living, and to be killed gently, and with as little pain as possible, when his time comes. The time of many is at hand.—*Richmond Whig*.

## USEFUL RECIPES.

**INFLAMED EYES OF HORSES.**—A correspondent in *Coleman's Rural*, writes: "Permit me to prescribe (if there is any inflammation) 10 grs. of calomel, 10 grs. of loaf sugar, and 2 grs. of sugar of lead—rub them together, and blow one fourth the amount into the eye every third day.

**MANGE ON HORSES AND CATTLE.**—Sulphur 8 oz., turpentine 2 oz., strong mercurial ointment 2 oz., linseed oil 1 pint, rub the flowers of Sulphur with a quarter part of the oil, then rub in the turpentine and ointment, and gradually add the rest of the oil; half to be rubbed in daily for three days, wash off with soft soap and warm water.

**LICE ON CATTLE.**—Anthracite coal ashes, sifted through a fine sieve into the hair, is effectual; lay the calves on their backs and sift it all over them; let them scatter the ashes over the floor. It seldom requires more than two applications, and does not injure them. Wood ashes in smaller quantities might answer, but there might be danger if they went in the rain or wet.

**TREATMENT OF GALLED BACK.**—The celebrated veterinary surgeon, George H. Dadd, gives in the *Prairie Farmer* the following:—So soon as an abrasion is discovered on the back of a horse, the animal should be excused from duty for a few days; the abraded parts should be dressed twice daily with a portion of the tincture of aloes and myrrh.—This simple treatment will soon heal the parts. Should there be no abrasion, but simple swelling, attended with heat, pain and tenderness, the parts should be frequently sponged with cold water. Occasionally the skin undergoes the process of hardening (induration.) This is a condition of the parts known to the farriers of old as "sitfast," and the treatment is as follows: Procure one ounce of iodine and smear the indurated spot with a portion of the same twice daily.

Some cases of galled back and shoulders are due to negligence and abuse, yet many animals, owing to a peculiarity of constitution, will "chafe," as the saying is, in those parts which come in contact with the collar and saddle, and neither human foresight nor mechanical means can prevent the same.

**QUICK AND EASY CURE FOR FOUNDER.**—Many years ago I learned a cure for founder in horses, which is so simple, and has proved so successful in my hands, that I send it to you, thinking it may be of service to some of your readers. Clean out the bottom of foot thoroughly—hold up the leg so as to bring the bottom of the hoof upward, holding it firmly in a horizontal position and pour in, say a table-spoonful of Spirits Turpentine, if the cavity of the hoof will hold that much—if not, pour in what it will hold, without danger of running over; touch the Turpentine with a red hot iron (this will set it on fire) hold the hoof firmly in position until it all burns out. Great care must be taken that none runs over on the hair of the hoof, less the skin be burned. If all the feet are affected burn turpentine in each of them. Relief will speedily follow and the animal be ready for service in a short time. I once applied this remedy to a horse who had been founderd twenty-four hours before I saw him, and he was promptly relieved. In another case, where the animal could hardly be induced to move, his suffering was so great, he was treated in the same manner, as soon as his trouble was discovered; and in less than an hour afterwards, he was hitched to a buggy and driven some twenty-five miles the same day—all lameness disappearing after he had travelled a few miles.—*BENJ. W. WOOD, in Southern Cultivator.*

**THE RECIPE.**—Take the "Maryland Farmer.

## SHORT HORNED CATTLE.

We have received from A. B. CONGER, Esq., of Waldburg, near Haverstraw, Rockland Co., N. Y. a pedigree Catalogue of his splendid herd of Short Horned Cattle, which is so famed throughout the country. Mr. Conger is known as one of the most careful breeders of this famous stock. From his introductory remarks we are tempted to extract the following :

The breeding of Short Horns is continued at Waldburg with this practical end in view, to impart—as far as light, air, exercise, proper food and management will serve—*constitutional vigor* to the younglings of the Herd.

To this end the maxim that "*early maturity breeds early decay*," is kept constantly in view, and all forcing of growth is avoided. This process, it is admitted, promotes pecuniary thrift in the grazier, who also forces immature (if not unhealthy looking) beef on the market. But who prefers the meat of an overfed steer at four years old to that of an ox at six, if the latter can be obtained? Moreover, it may be that the former is slaughtered early because (as is frequently seen in breeding animals which go through the same process of over feeding when young) fears may be entertained of their being able to survive, during another year, the forcing they have endured from calf-hood. The life of a breeding bull or cow should be averaged at fourteen years, at least, and consulting the rules which divides the allotted term of human life, and taking the first two-sevenths for the period of minority, and the next two for the attainment of manhood, vigor, &c., &c., we would have at half that ratio, the first two years of the life of a Short Horn—destined for breeding purposes, and for a fair chance of development, fecundity and life—treated as its infancy, and the next two reserved for its ripening development.—This view may be scoffed at as costing the breeder too much time, food and care; but it is believed that those who prefer to select as breeding stock such as have been forced to weigh, at the breeder's profit, 1,000 lbs. at 12 months, discover their own ultimate loss in the purchase.

No extreme rule is designed to be pressed in this matter, but it is satisfactory to know that those who have purchased from this Herd such young bulls as Agate's Airdrie, Queen's Airdrie, *Miss Butterfly's* SON of *Grand Turk*, &c., have had no occasion to repent of their purchases.

Under the system pursued we can now show, as the results of avoiding the process of forcing (which tends, as is insisted, to substitute for sound fibrine an excess of albumen and fat, so that the tissues under the enervated skin are filled with trembling jelly, and the organs and blood-vessels show, under the microscope, hardly anything else but fat and white corpuscles) animals with unimpaired vigor of constitution, in good flesh, and showing on the scale good weights. We give an idea of the latter from weights lately taken as follows:

Udora's Son of Grand Turk.....	2,000 lbs.
Gr. Son of R. Rose 2d and D.'s Gloster.....	2,030 "
Earl Knightly.....	1,620 "
Famosa.....	1,650 "
Florence.....	1,900 "

Wednesdays and Thursdays in each week are mainly devoted by the proprietor for the reception of those who may desire to visit his place without giving notice of a day more convenient to them.

WALDBURG is thirty-five miles from the city of New York, on the west bank of the Hudson, two miles south of Haverstraw and seven miles north of Nyack, and is accessible by morning and evening boats from New York City,

at the foot of Jay and Harrison Streets, by ferry boats from Crugers and Tarrytown, on Hudson River Railroad. It is seven miles from Blauveltville and Nanuet, (east of Suffern, on New York and Erie Railroad Branch), and may be reached by Northern Railroad of New Jersey from Nyack, Blauveltville or Nanuet.

THE AMERICAN YEAR-BOOK AND NATIONAL REGISTER FOR 1869. Edited by David N. Camp. Volume I. Published by O. D. Case & Co., Hartford. pp. 824.

The object of this somewhat bulky volume is exceedingly comprehensive. It is no less than to present a general view of the United States, astronomical, historical, political, financial, commercial, agricultural, educational and religious, for 1869, including every branch of the National and State Governments. To this is added a record of important events throughout the world during the year 1868. Each department of the book is replete with valuable information, such as would be most sought after in the family, and especially in the political and commercial circle. Its view of the condition of each State is as thorough as can possibly be made in the allotted space, giving the names of the State officers and members of the judiciary, the condition of the common schools, the charitable and penal institutions, and a glance at the population, wealth and industry at different periods. Tables of the Presidential vote of each State by counties, from 1836 to the present time, also of the popular vote of each in 1868, are furnished. Even the dead of the last year are not forgotten, and twenty-eight pages are devoted to them. The fifth part contains several brief but very instructive miscellaneous essays, by such writers as N. C. Meeker, Horace Greeley, Albert D. Richardson, and Everett A. Duyckinck. Forty-five pages are devoted to these. The religious statistics of the world are quite full, covering fourteen pages. Eighty pages are given to statistics of foreign States. It is a pleasure to praise a volume like this, embracing such a vast range of useful information, and evincing, as it does, a thorough knowledge of the wants of all classes of society. Indeed, on the many subjects upon which it treats it will fill the place of a library. We are glad to add that it is to be continued, on the same comprehensive plan, from year to year.

George Stearns, Agent, No. 13 S. Calvert Street, Baltimore—price \$3.50 to \$6, according to binding.

PETERS' MUSICAL MONTHLY.—The March number of *Peters' Musical Monthly* is at hand, and contains some twenty-four pages of Choice New Music, giving selections from the most popular writers, and variety enough to suit the most fastidious.

In addition to the above, Mr. PETERS gives fifteen pages of choice family reading, and all for the moderate sum of 30 cents, or \$3 per year—over \$3 worth of New Music appearing in each number. Those of our musical friends who do not subscribe are certainly losing a rich treat, as \$40 worth of music cannot be bought every day for such a small sum. Issued by J. L. Peters, Music Publisher, P. O. Box 5429, New York.

LIGHTNING TRAP.—In our last No. we had an advertisement of the Lightning Trap, which is certainly a very ingenious invention. They are manufactured by the Lightning Trap Co., 95 Mercer Street, New York, who have in our dealings with them, performed according to agreement.

From Ellwanger & Barry, Rochester, N. Y., their descriptive Catalogue of Hardy Ornamental Trees, Shrubs, Roses, &c., cultivated at Mount Hope Nursery. It is numerously illustrated with ornamental trees, &c.



## Horticultural.

### METHOD OF PREPARING LAND FOR ORCHARDS.

Having been repeatedly, of late, asked for advice, in relation to the best method of preparing land and setting for orchards, I would avail myself of the opportunity furnished to answer, in a general way, numerous querists at once.

The best soil for an orchard is that which will produce a good corn crop, of course we mean upland. The alluvial of river bottoms, which will produce, always, most luxuriant crops of corn and the *coarse grasses*, is not suited for orchards. The exposure is not such as is wanted for apples, &c.—Upland, of course, for good fruit.

We are of opinion that the best method of fertilizing land that is not already rich enough, is by means of clover and lime. Analysis of the woody fibre of apple and other fruit trees, shows that lime and the alkalis constitute quite a large element in the plant-food needed for their growth. We would not advise the use of any heating manures. Well rotted stable manure is the least objectionable, and this, even when applied, must be kept carefully from contact with the roots of the young tree. Wood ashes is a good application at any time, and when sown liberally, broadcast to growing orchards, will give liberal returns.

We are firm believers in the thorough manipulation, as it were—the thorough disintegration of the ground before setting trees. In fact we have frequently advanced the idea, that one reason why so many farmers fail to get better returns, in crops, from their lands, is because they do not put *their ground* in proper condition before sowing their seed. And it has been said, by practical agriculturists, both English and American, that three plowings, previous to seeding, are fully the equal in fertilizing effect of a good coating of manure. Can you controvert it?

And just here I would make a suggestion apropos to the season. It is that some, (many) of our farmers would test, on a small scale, this very theory. Whilst preparing for Spring planting—corn, oats, anything—let them, with special care, with plow, harrow, roller and cultivator, thoroughly pulverize and disintegrate, say, one or two acres of average quality and exposure, in a given field. It will not cost much to do this. Note carefully the actual cost in time, &c., of the extra preparation of this plat over and above the rate of the whole. Then let the planting and after tillage of the whole field be the same, and carefully note and report the result—keeping the crop on this plat to itself. Suppose some such men as JOHN MONTGOMERY, SAMUEL

ZINC or ISAAC FULTZ would try thus and fully test this theory. There are many such men in Rock-bridge and they can, if they will, confer a public benefit in this way. Come, gentlemen, don't let this appeal be in vain.

But to return from this digression. Now, with regard to setting trees, we say plow carefully and deeply, and harrow well, then, after you have designated where your rows are to run, by stakes at each end of the orchard plat, open a furrow from stake to stake, marking the place of the row of trees. Then run the plow, (three or four horse the best) turning the furrows from each side to the marking furrow. We would recommend, at least, four or five furrows thus to each row of trees, made with some deep running plow. Now the labour of setting the trees is comparatively light. The ground is easily removed with a shovel so as to give a good, wide opening—ample room to spread out lateral roots. NEVER DIG A PIT ( $2 \times 2\frac{1}{2}$  feet and 18 inches deep) as is so often advised, for in our clay soils this is about equivalent to making a cement cistern to hold water and drown *the life* out of the tree.—After you have carefully covered all the roots, press down with the foot and compact well the earth, so that the roots and rootlets may all be embraced.—This done, you will need stakes only when your trees are of extra size. Small sizes will not require staking.

In this connection, we suggest to our farmers, to *plant more fruit trees*. We have statistics at hand, and in numbers, going to show that the profits of orchards and of small-fruit raising, far exceed those from any other species of husbandry and especially when we take the average result for a series of years. And this Spring, especially, we should think, more opportune than is generally the case; for our farmers, having improved the fine open weather of winter, have an unusually large average of land already broken up and in readiness for Spring cropping. Plant every year, say 50 to 100 trees of choice fruit, adapted to our soil and climate and in a few years, your lands will be doubled in value. Set out one hundred or more this Spring and thus gain *one year*. If you take this advice and find you have made a blunder, why, hold responsible,

Yours truly,

J. FULLER.

*Lexington (Va.) Gazette.*

VERMIN ON CHICKENS.—A correspondent at Kirkwood, in the *Journal of Agriculture*, states that for some seven years his chickens have been kept free from lice by strewing small branches or spray of cedar about the hennerly. Previous to the use of this simple remedy, they were badly infested. No whitewashing or other means to expel vermin have been used.

## Grape Culture.

### A SMALL COLD GRAPERY.

A correspondent in Bristol township, Bucks county, asks us for the plan of a small grapery and the varieties of grapes he should occupy it with.

It is somewhat difficult to give the exact dimensions of such a house so that they can readily be understood. We will briefly say, however, that we intend to construct a new grapery for ourselves in the spring, and will make it of the following dimensions: Length 30 feet, width 20. Double pitch.—Height about 15 feet. Roof to fall to within three or three and a half feet of the ground. In this space insert immovable sash. Three doors or traps in each pitch, say  $3\frac{1}{2}$  by 3 or 3 by 4, hinges at tops. Two windows in the rear, and a door in the centre front. Front and rear sash must come down to the same line as the pitch. We prefer a frame building, using red cedar posts. The vines can then be planted inside with perfect freedom to run where they please.

All the inside of the ground should be prepared, and ten feet of the outside. This should be dug  $2\frac{1}{2}$  or 3 feet in depth, and filled to about eight inches with broken stone about the size of "broken coal." The follow with a layer of old sod which ought to be gathered in autumn, piled up in heaps for use in the spring. It will require a great deal of this.—Then a good layer of raw bone fertilizer and then layer about until the whole is completed and raised somewhat above the surrounding surface.

A dry situation should be selected, and a drain made to carry off surplus water. This latter is not always required if the situation is all that is desired. A sink, half a dozen feet deep, walled, a short distance off, is all that is necessary to drain into.

Such a building shall contain about 22 vines—9 on each side and 2 at each end. We shall plant the following varieties: 10 Black Hamburgs, 2 Muscat Hamburgs, 2 White Muscats of Alexandria, 2 Grissly Frontignans, 2 White Frontignans, 2 Golden Chasselas, 1 Golden Hamburg, 1 Sweetwater.

If properly attended to a grapery of this size ought to produce the third year 75 pounds of grapes, the fourth year 175, and subsequently 200.—*Ed. Ger. mantown Telegraph.*

MARYLAND AGRICULTURAL COLLEGE.—At a meeting held on Wednesday, April 14th, of the stockholders of the Maryland Agricultural College, at Guy's Hotel, Baltimore city, to elect a board of trustees for the ensuing year, the following named gentlemen were chosen: Hon. James T. Earle, Edward Lloyd, Dr. Eli J. Henkle, Allen Bowie Davis, Charles B. Calvert, Allen P. Dodge, and John Carroll Walsh.

## The Apiary.

### Directions for "Hiving" a Swarm of Bees.

Place the Hive on a table or level spot of ground, *in the shade*, tack a square yard or more of muslin or linen to the top side of the alighting board, and spread it out as a carpet, on which to place the bees; then, if the limb on which the bees have "settled," be worthless, gently cut it off, carry and lay it on the cloth; with a large spoon, place a few bees near the entrance and they will all soon crawl in. Should any remain outside under the portico, they should be brushed down with a quill feather until all have entered, as, if the queen should remain outside the bees would soon leave the Hive. When all have entered, the hive should *immediately* be placed where it is designed it shall permanently remain.—Great care should be taken to have the *sides* of the hive *level with each other*, while the *back end* should be raised about three inches higher than the front, thus forming (of the bottom board) an inclined plain, and rendering it easy for the bees to clean their hive of moth and dust. When the swarm alights on the body, or large limb of a tree, or upon the limb of a valuable tree, they may be *very quietly and gently* brushed with a quill feather into a box or open basket, and then quickly covered, carried to the hive, shaken out upon the cloth, and induced to enter, as above directed. Bees dislike to be brushed with hairy or woolly substances. As soon as the weather becomes cool, (say October or November,) contract or reduce the size of the entrance, by properly placing the triangular "entrance blocks" before it, and as winter approaches reduce it to its *smallest opening*, and then remove the honey board, and stuff the top cover of the hive with straw or hay to absorb the moisture which will arise from the bees during very cold weather. And last, though not least, if you desire to avail yourself of all the advantages of this or any other hive, read and study "Langstroth on the Honey Bee," price two dollars, to be had of Henry Taylor & Co., book-sellers, Baltimore, Md.

SMART BEES.—One of my neighbors had an old hive of bees that last season threw off three swarms, two large swarms and one small one. The last swarm, after working two or three months, and making considerable comb, but not much honey, swarmed out one pleasant day in the fall, well knowing that they did not have sufficient honey to winter on, and returned again to the parent hive. Who can beat that?—E. W. B., in *Country Gentleman*.

Love lightens labor always, and loving will banish complaint.



## The Florist.

### FLOWER-GARDEN AND PLEASURE-GROUND.

Throughout the Middle and Northern States, May is the great month for flower gardening.

Fresh soil is very important. Things seldom do well two years running in the same place. Have a care that the roots of neighboring trees do not get into the bed; they rob it and dry it, and the flowers dwindle and die. If beds are near trees go round the bed once a year with a spade and cut off all the roots that may have strayed into the bed. This is very important in beds of evergreen shrubs, like *Mahonias*, *Euonymus* and *Rhododendrons*, which like shade, but not dry, impoverished soil.

Leaf mould is good for flowers if two or three years old, and very much decayed; when but half rotten it is an injury. Rotten sod is the best soil for flowers; and cow manure, which has lain two years to rot, the best fertilizer. Where rotten sod is not easily obtained, the edging parings of walks may be preserved in a heap for flower purposes.

In planting out flowers don't take them at once from the hot house to the open ground, set the pots out for a few days in a cold frame with plenty of air, or under a tree in a sheltered place. Before turning them out of pots, water; and when set in the earth, press the soil very hard about the flower roots. If the ground be dry, the earth cannot be pressed too hard.

Don't make the beds very high, or the rains in summer will run off too rapidly. After smoothing the surface peg down the plants as much as possible so as to cover the surface soon. The plants also push out sideshoots easier. Where small twigs can be had, split and double them like hair pins, for pegging down; where these are not at hand, small pieces of bast mat or twine, doubled and dibbled in the earth by the ends, make very fine pegs.

In this climate, Hothouse plants often make noble bedders. The Chinese Rose, *Hibiscus*, is a first class thing, making a gorgeous show all summer. The Geranium, also is getting immensely popular. The tree Carnation is also in much request. The Madagascar Periwinkle, rose and white, is also now often seen in beds and masses.

Climbing plants grow faster on trellis than if left to themselves; stick them in as soon as the climbers are set out.

Deciduous trees can be safely transplanted after the leaves have pushed, and up to the first of June; but the new leaves must be taken off, and the young shoots shortened. In a few weeks they will push out a new crop of leaves. According to "natural laws" as laid down in the books, it would injure the trees very much; but, after a ten year's obser-

vation of the facts, we do not find it hurts the vitality of the trees very much, while few ever die so treated. Evergreens seem to do better in May than in any other spring month. Of the newer evergreen, *Thujaopsis borealis*, *Cupressus Lawsoniana*, *Libocedrus decurrens*, *Thuja ericoides*, are really good additions to our list.

Tuberose, *Gladiolus*, *Tigridias*, *Dahlias*, and other bulbous things which cannot be put out till the ground gets warm, ought not to be kept out of the earth any longer than necessary. It was once supposed they thrive best in poor soil—an error: they love rich food.

Mow lawns very early the first mowing; or at every subsequent mowing, the lawn will look brown: a thin sprinkling of salt is good for the lawn, just enough salt to see the grains on the surface about a quarter of an inch apart. An over-dose will destroy the grass. Frequent rolling is one of the best ways to get a good close sod. When coarse weeds get in the lawn, hand weeding is the best remedy.—*Gardener's Monthly*.

**TAKING UP TREES.**—The following relative to the taking up of trees for transplanting, accords with the views of the *Germantown Telegraph*, so often expressed, but they cannot be repeated too often; they were given at a recent meeting of agriculturists at New Haven:

"An enormous amount of money is annually lost to tree purchasers from rude and unskilful taking up. Trees are torn up by the roots, as if the trunk and branches were the one thing necessary, and the roots superfluous. The proper way is, to open a trench on each side of the tree with a common spade, keeping the edge toward the tree, so as not to cross a root. These trenches should be far enough from the tree to avoid the main roots, and deep enough to go below all except a tap root, which may be cut off. This being done, the tree may be pulled up with its roots entire."

**THE PINDER.**—The *Port Gibson Standard* has an article on the pinder, or goober-pea. It says:

Our friend, Mr. J. H. Hedrick, informs us that he raised this season, from about one-half acre of ground, 83 bushels of pinders, most of which he has shipped to market. We believe they are worth \$2.50 per bushel in St. Louis. Even at \$2 per bushel, there is no cotton crop will pay like that. It would be a very poor acre of ground that would not produce at least 100 bushels; and a very poor 100 bushels of pinders that would not bring \$200. Can any farmer do that with cotton? The labor and expense of culture are comparatively nothing, and there is a sure and increasing market for them. The consumption is continually on the increase.

## THE DAIRY BUSINESS.

At a recent meeting of the Lower Makefield Farmers' Club, (Bucks county, Pennsylvania,) the following remarks on the profitable management of the dairy, were made by one of the members:

"Milk can be obtained from cows of any description, and from that milk butter can be made, but in order to have milk and butter of the first quality and in goodly quantity, it is necessary to have good cows, to give them food which will produce milk of a sweet, rich flavor, and to have a place for keeping that milk of a suitable temperature to raise the cream after standing a proper length of time—three requisites which are very important. Then let us consider first what constitutes good cows, the qualities which have a tendency to produce rich milk, and consequently good butter. There are some of all breeds which possess those qualities, but they are more largely developed in some than in others. For instance, the Alderneys, as a general thing, give rich milk, and consequently make butter of superior quality. Perhaps, some may say why not keep the Alderneys? The objections made to them are that they are too small, the quantity of milk they yield is not large enough, and they are not so hardy as our native cattle, requiring more care through the winter. If these objections are sufficient, what is our remedy? If we obtain a cross, what is the most profitable cross to be made? We should cross with breeds which possess large milking qualities, and are well adapted to climate. In my opinion, by selecting cows of milking Durham, and crossing them with the Alderney, we should obtain those possessing as many of the properties desired as any other breed.

It would increase the quantity of milk, and, although it might not be quite so rich, it would be so much greater in amount that more butter would be produced than from the small quantity given by the full blooded Alderneys. The size would also be increased, and they would be better adapted to our climate. But some ask, will it pay to raise cows? I answer that at present prices it will, and by crossing judiciously we are almost certain to raise good, if not extra cows. I believe it is mostly admitted by those who are engaged in endeavoring to improve the milking properties of cows, that it is better to have them come into profit at two years old, as those properties are thereby developed. The care which cows receive makes a great difference in their health, and consequently in what they produce, so that to keep them in good thrift, they should at all seasons of the year receive a portion of green and dry food.

"That is, in summer hay should be placed where it will be accessible to them at all times, and in winter a few roots should be given daily with their dry feed. After obtaining this pure, rich milk, I think it is admitted that the place for producing the best and greatest quantity of butter in summer is a good spring house, where there is a pure, cold stream of water passing constantly; in winter by placing a stove in the same to keep a uniform temperature. I therefore think that to have good milk and butter we must first have good cows, kept on the right kind of food to produce the milk, and a place for setting that milk well adapted to making butter."

THREE rules for renovating old pastures: 1. In winter, lime them in the wet places. 2. In summer, mow them where bushy. 3. Keep sheep on them, and feed the sheep with beans and oil-cake.

SANDCRACK.—An inquiry being made of the conductor of the veterinary department of the *Western Rural*, as to the best and quickest means of curing or growing off the hoof of a stallion colt five years old, the following reply has been made:

"Sandcracks vary much in depth and extent and the same treatment is not applicable to every case. A horse with a sandcrack should be shod with a bar shoe, as that transfers some of his weight from the wall to the frog. The edges of the sandcrack should be trimmed with a sharp drawing knife, the crack filled with tar, and then some strong cord or tape should be wound round the hoof so as to cover the hoof and exclude dirt from the sandcrack. A little acetate of cantharides rubbed round the coronet once a week will increase the growth of horn."

SALTPETRE AS A FERTILIZER.—Saltpetre is pernicious to many species of insects; it is also an excellent manure, and may be used to great advantage when dissolved in the proportion of one pound to four gallons of water. This liquid, applied to plants through the rose of a watering-pot, will preserve health and vigor. Soapsuds are equally beneficial, if used occasionally in the same manner—say once a week. These remedies, applied alternately, have been known to preserve melon and cucumber-vines from the ravages of the yellow-fly, bugs, blight, etc. and to keep the plants in a thriving condition.

IMPROVING POOR SOILS.—Much depends on the manures used on particular kinds of soil. The great art of improving sandy and clayey soils consists in giving the former such dressings of clay, cow-dung, and other kinds of manure, as will have a tendency to bind and make them more compact, and consequently more retentive of moisture; and to the latter, coats of horse dung, ashes, sand, and such other composts as may tend to separate the particles and open the pores of the clay, so as to cause it to approach as nearly as possible to a loam.

TO PREVENT SKIPPERS IN BACON.—S. E. Washington, in the *Practical Farmer*, says: Smoke your meat with cobs instead of chips. I have tried the above, and found it to be an excellent preventive; and am also assured of the same by the experience of others who have tried it.

BEST'S TREE INVIGORATOR.—Our extract from the *Entomologist* two weeks ago showed the theoretical absurdity of this patent article. J. B., of Tolono, Ill., states that this invigorator was used by certain parties there, and that the borers increased rapidly after its application, and that one man took fourteen borers from a peach tree some time after using the stuff, and in his opinion it is of no more use than an application of wind. As to potato bugs, he says it may be effectual, as it kills the vines, and if applied to all the vines the bugs will die of starvation.—*Journal of Agriculture*.



## Ladies Department.

### NO TIME LIKE THE OLD TIME.

BY O. W. HOLMES.

There is no time like the old time, when you and I were young,  
When the buds of April blossomed, and the birds of spring-  
time sung!

The garden's brightest glories by summer suns are nursed,  
But, oh, the sweet, sweet, violets, the flowers that opened first!

There is no place like the old place, where you and I were  
born,

Where we lifted first our eyelids on the splendors of the morn,  
From the milk-white breast that warmed us, from the cling-  
ing arms that bore,

Where the dear eyes glistened o'er us that will look on us no  
more!

There is no friend like the old friend who has shared our  
morning days,

No greeting like his welcome, no homage like his praise;  
Fame is the scentless sunflower, with gaudy crown of gold;  
But friendship is the breathing rose, with sweets in every  
fold.

There is no love like the old love that we courted in our pride;  
Though the leaves are falling, falling and we are fading side  
by side,

There are blossoms all around us with the colors of our dawn,  
And we live in borrowed sunshine when the light of day is  
gone.

There are no times like the old times,—they shall never be  
forgot!

There is no place like the old place,—keep green the dear old  
spot!

There are no friends like the old friends,—may Heaven pro-  
tect their lives!

There are no loves like the old loves,—God bless our loving  
wives!

*Atlantic Monthly.*

### GOOD BREAD AND HOW TO MAKE IT.

BY DR. J. H. HANAFORD.

There are more difficulties in making good bread than most cooks suppose, probably. But very few are as certain of success in this matter, as mechanics are of producing a good article when they know what materials are at their command. If they succeed in producing good bread they are "in luck," and if they fail they have "bad luck," almost everything connected with the whole matter being uncertain. One who ordinarily makes good bread—not always—is regarded as decidedly a good or fortunate cook. Very few have the requisite skill in this important department of housewifery that would be demanded to secure a situation in other departments of industry.

Almost all by a reference to their cook-book, are able to make good ice-cream, floating-island, pound cake, mincepies, etc.,—good of the kind—but when they attempt to make that every day article, bread, which should be allowed a conspicuous place on every table, uncertainty attends their efforts. And yet the laws of fermentation are definite and as easily learned as those connected with other processes. This ignorance or want of positive skill is all the more unfortunate since bread is really a staple article of consumption in civilized society and must even form one of the most important articles of diet.

It must be admitted that there are some causes of uncertainty in the production of good bread necessarily involved. Among these are the irregularities connected with the articles employed, since the wheat may be raised in different latitudes—and of course differing in the amount of gluten,

starch, etc.,—the Southern having more of the former and the Northern more of the latter—some may be the Spring and other the Fall wheat; some may be harvested just at the right time and in good condition, while still other kinds may be heated in grinding, or hurt by moisture, some of which conditions are difficult of observation. Still there are other circumstances over which we have control, of far greater importance, since good flour can generally be found and there are those who are able to decide if cooks are not.

The means of securing porosity, or lightness, are among the more important considerations after securing suitable flour. All will take the responsibility of deciding between the two methods, the fermentive or the effervescent, if this term may be used. There is a wide range of articles if one chooses to evolve the necessary carbonic-acid gas by the union of an alkali and an acid, any such combination producing the same result practically, though there may be a choice. One may prefer the use of sour milk and saleratus, another cream of tartar. Prof Horsford's excellent preparations, the sesqui carbonate of soda and hydrochloric acid—in the proportion of forty grains of the former, the alkali, to fifty drops of the latter, the acid, all, when combined in definite proportions, produce the gas, each neutralizing the other, leaving a salt as the residuum, rendering the addition of common salt unnecessary. From some cause, however, this process has not been adopted generally, at least in rural districts, the ease with which the various ferments are produced and the relative cost perhaps determining the method adopted.

In preparing any of these ferments—usually known as yeast-cakes, emptyings or leaven, it is proper to know that when starch or sugar are moistened and exposed to the air there is but a slight tendency to fermentation, but when any albuminous substance, as the white of an egg, milk, or flour-paste is added, the remaining sugar is changed into alcohol and carbonic-acid-gas. As a matter of economy or custom, the potato is extensively used in the domestic preparation of ferment, this containing a large supply of starch. Hops are ordinarily used, in part at least, to impart a peculiar aroma and to preserve it. The fermentation resulting from this combination is generally known as panary fermentation, which is but another expression for vinous fermentation, perhaps.

A good yeast is made by boiling a handful of hops in two quarts of water, strain and add four finely mashed potatoes, with a third of a cup full of salt to keep it. This will keep, in a cool place, for several weeks, if kept from the air. Of course it is best to add a little good old yeast to this, though the warmth of 70° F. will produce fermentation in this preparation. A small amount is sufficient, since such yeast contains a minute "yeast plant," growing and maturing like any plant, so small that a cubic inch is supposed to contain 1,200,000,000 of them! These continue to reproduce themselves, but are destroyed in making at a temperature of 212° F.

Some prefer, instead of the potato, to stir wheat-meal or flour into this decoction of hops, of course securing starch, though at a more expensive rate. Milk-yeast, or "risings" is made by mixing a small quantity of flour containing sugar, starch, etc., with a quart of new milk—containing albumen—keeping it in a warm place till fermented, and then using it.

If cakes are preferred, any of these preparations are combined with meal, then made into thin cakes and dried as rapidly as convenient, which may be kept for months.

This fermentive process demands more careful watching than the other, the most important consideration connected with the wholesomeness of "raised" bread, being the proper combination of the acid and alkali, both of which are to some extent poisonous, that there remain no excess of either, each, when properly combined, neutralizing the other. It is important, first, to secure just enough fermentation, just enough

of the gas to produce the necessary porosity. This fermentation—unless arrested by a heat of 212° F. or a coldness of 10° F.—will continue, converting the nutriment into innutritious substances, producing acetous fermentation and at last putrefaction.

Slight kneading is the fault of many housekeepers. A thorough incorporation of the “leaven” with the “whole lump” is only secured by much labor. If there is too much yeast in one part and none in another, there will be a want of uniformity, some parts being solid and others consisting of large cavities, while good bread has moderate porosity throughout. Bakers knead or “break” their dough much more than ordinary cooks, while the “aerated bread” is molded by machinery for about one hour, the gas—obtained at the distilleries,—being pressed into the dough by a pressure of 80 pounds to the square inch. Indeed, there are other favorable results beside that of combining the raising materials with the mass, as the experience of cooks demonstrates. By such the advice is often given, “knead a great deal.”—Knead until the dough becomes plastic, watching its varied appearance at different stages and then noting the result after baking. Experience and observation will teach one more than theory.

It is a great mistake—though usual, to allow this fermentation to proceed until the dough is *nearly* sour, at which point much of the natural sweetness and grain taste have disappeared. Since the prominent idea of the fermentation is the evolution of sufficient gas to render the bread light, it may be arrested safely by baking at an earlier period than usual, securing sweeter bread and yet sufficiently light, if other important considerations are regarded. Remember in putting the dough into the pans not to disturb it much, since much stirring allows the escape of the gas. A “quick heat” at first will harden the surface, which tends to retard the escape of the gas, etc., allowing them to expand from the action of the heat.

These expanding agents are the gas produced by the fermentation, the water of the dough—changed to steam after the heat rises as high as 212°—and the vaporizing of the alcohol, all of which expand more and more as the heat increases, or until it finally escapes, under great pressure.—Such a loaf loses nearly one-sixth of its weight by evaporation, while it often becomes twice its natural size. This heat, as before stated, arrests the fermentation, destroys the yeast-plant, changes a part of the remaining starch into gum, while the gluten, not materially changed, chemically, loses most of its tenacity or toughness—particularly in stale bread—and unites closely with the starch.

It should be remarked, in this connection, if the first heat is too great, or continued till a thick crust is burned, resembling charcoal, this becomes a non-conductor of heat, thus preventing the thorough baking of the interior of the loaf.—After the first hardening of the surface by a quick heat, a gradual heat—will tend to improve the quality of the bread. If the dough has sufficient toughness—the result of an ample supply of gluten in the flour or meal,—and the heat is kept at the right point and uniform, the walls of these cells, will remain firm, the porosity remaining after the gases have escaped or contracted, leaving the bread uniformly vinous, a wholesome and nutritious food.

The French cooks, noted for ability in bread-making—bake bread more thoroughly than we do in this country, browning but not burning the crust. We might with propriety imitate them, securing a more palatable and wholesome bread.—*The Householder.*

Of earthly goods the best, is a good Wife;  
A bad, the bitterest Curse of human life.

## DOMESTIC RECIPES.

**HOW TO BEAT WHITES OF EGGS.**—On breaking eggs, take care that none of the yolk becomes mingled with the whites. A single particle will sometimes prevent their foaming well. Put the whites into a large flat dish, and beat them with an egg-beater made of double wire, with a tin handle, or with a cork stuck crosswise upon the prongs of a fork. Strike a sharp, quick stroke through the whole length of the dish.—Beat them in the cellar, or some other cool place, till they look like snow, and you can turn the dish over without their slipping off. Never suspend the process, nor let them stand, even for one minute, as they will begin to turn to a liquid state, and cannot be restored, and thus will make heavy cake.

**HOW THE DUTCH WASH.**—They do not wash with a machine. They would scorn the idea. They use simply refined borax. Dutch women are well known as models of cleanliness, at least in their own country. They get up linen whiter and nicer than any others, and they do it by using refined borax as a washing powder instead of soda, in the proportion of a large handful to about ten gallons of boiling water. They thus save one-half in soap. Cambrics and laces require an extra quantity of the powder, while for stiffening crinoline and underskirts a strong solution is necessary. Try it, as I have, and see for yourself.

**GOOD BREAKFAST ROLLS.**—A hot roll for breakfast is a most toothsome article of diet, when made right, otherwise they are only fit for the pigs. I make mine as follows, and I think them hard to beat:—Take two quarts of flour, make a hole in it and pour in one pint of curd milk that has been boiled with one cup of butter melted in it, and half a cup of good yeast. Let it stand without mixing two or three hours; then salt and knead it and let it rise a few hours; then mould it and let it rise again in the pans before baking. Bake in a quick oven about fifteen minutes.

**CROUP.**—Boil a dozen stalks of lobelia in one pint of water twenty minutes, then strain and simmer down to half a teacupfull, then fill up the cup with molasses. Bottle it and it is ready for use. Dose for a child, a teaspoonfull every ten minutes until relieved. If the case is severe, place the feet of the patient in warm water, and tie wet cloths over the chest and throat. It should be remembered that the above remedy should be kept in the family, and be given when hoarseness first appears. It is a good cough remedy for all, both old and young.

**DYSENTERY.**—Beat one egg in a teacup, add a tablespoonfull of loaf sugar, a teaspoonfull of ground spice, and fill up the cup with milk. Give the patient a tablespoonfull once in ten or fifteen minutes until relieved. This remedy cured a lady of bloody dysentery when she was supposed to be past cure.

**COUGH REMEDY FOR CONSUMPTION.**—One pint of Bourbon whiskey, and two ounces of rock candy. Dose for an adult, a tablespoonfull three times a day.

**FELONS.**—A felon is easily known by a sharp pain near the bone. Fill a pint tin cup one-fourth full of wood ashes, then fill the cup up with warm water and place it in the stove. Hold the finger or the affected part in the cup until the pain is removed. The contents of the cup must be kept as hot as the hand can bear. If the pain returns, repeat the process. In the more advanced stages a poultice made of slippery elm, flaxseed, or even bread and milk, is good; but the best thing to draw a felon to a head is to apply a salve made of the yolk of an egg thickened with wheat flour.—*Above from Ger. Telegraph.*



# BALTIMORE MARKETS---April 23.

Prepared for the "MARYLAND FARMER" by JOHN MERRIMAN & CO., BALTIMORE.

[Unless when otherwise specified the prices are wholesale.]

BEEWAX—Western 33 cts.; Southern 40 cts.  
COFFEE.—Rio 16½ cts., gold.  
COTTON.—Low Middling 27½¢@00 cts.; Middling, 28¼¢@29 cents; Ordinary Upland 25½ cents; Good Ordinary 26½ cts.

FEATHERS.—Common to mixed 40¢@50 cts. per lb.; fair to good 55¢@60 cts.; prime live geese, 80 cts.  
FISH.—No. 1 Bay mackerel \$36@27½; No. 1 Shore \$22@23; No. 2 \$18@19; No. 3 \$13@14; medium \$12.00@13; Labrador herring \$8.50@9.50; gibbed \$5.50@6.50; Codfish \$5.50@7, per 100 lbs.

FLOUR—  
Howard Street Super ..... \$ 6.25 @ \$ 6.75  
    "    Shipping Extra..... 7.00 @ 7.50  
    "    High Grades..... 7.75 @ 8.75  
    "    Family..... 9.00 @ 10.00  
Western Winter Super ..... 5.75 @ 6.25  
    "    Shipping Extra..... 6.50 @ 7.00  
    "    Choice Extra..... 7.50 @ 8.00  
    "    Family..... 8.50 @ 9.00  
Northwestern Super..... 5.50 @ 6.00  
    do Extra..... 6.25 @ 7.25  
City Mills Super ..... 6.25 @ 7.25  
    "    Standard Extra..... 7.25 @ 7.50  
    "    Shipping brands Extra..... 8.25 @ 8.75  
Patapasco, Horicon, Reservoir and Wewerton  
    Family..... 00.00 @ 11.75  
G. W. Legg's Family..... 00.00 @ 12.50  
Union Mills Acme Family..... 00.00 @ 13.00  
Greenfield Family..... 00.00 @ 13.00  
James S. Welch's Family..... 15.00 @ 14.00  
Baltimore High grade Extra..... 00.00 @ 10.25  
Ashland Family..... 00.00 @ 13.00  
Lingane..... 00.00 @ 11.75  
Rye Flour..... 6.75 @ 7.25  
Corn Meal—City Mills..... 4.25 @ 4.50  
Buckwheat—New York ½ 100 lb..... 4.00 @ 4.25  
    "    Pennsylvania..... 3.50 @ 3.75

## FERTILIZERS—

The Agent of the Peruvian Government having closed out the entire Stock at this Port, dealers are charging \$80@85 per 2000 lbs., as to quantity.

Turner's Excelsior.....	70	½ ton of 2000 lbs.
Turner's Ammo. S. Phos.....	55	½ ton "
Coe's Ammo. S. Phos.....	55	½ ton "
Soluble Pacific Guano.....	60	½ ton "
Redonda Guano.....	30	½ ton "
Flour of Bone.....	60	½ ton "
Andrew Coe's Super-phosphate.....	60	½ ton "
Baugh's Raw Bone S. Phos.....	56	½ ton "
Baugh's Chicago Blood Manure.....	50	½ ton "
"    Bone Fertilizer.....	45	½ ton "
Grimes' Pat. Improved Fertilizer.....	48	½ ton "
Zell's Raw Bone Phosphate.....	56	½ ton "
Rhodes' do.....	50	½ ton "
Mapes' do.....	60	½ ton "
Bone Dust.....	45	½ ton "
Hornor's Bone Dust.....	45	½ ton "
Dissolved Bones.....	60	½ ton "
Baynes' Fertilizer.....	40	½ ton "
"    Fine Ground Bone.....	45	½ ton "
"A A" Mexican Guano.....	33	½ ton "
"A" do.....	30	½ ton "
Moro Phillips' Super-Phosphate.....	56	½ ton "
Berger & Burtz's S. Phos. of Lime	56	½ ton "
Md. Fertilizing & Manufacturing		
Co's Ammoniated Super-Phos-		
phate.....	50	½ ton
Fine Ground Bone Phosphates.....	30	½ ton
Plaster.....	2.25	½ bbl.
Sulphuric acid, 3 cts. ½ lb.—(Carboy \$3.)		
Nitrate of Soda (refined Saltpetre) 6½ cts. per lb in kegs of 100 lbs.		

GRAIN.—Wheat—Prime to choice red 2.00@2.15; common to good do. 1.70@1.90; Maryland white 2.00 @ 2.25.—Corn—Prime new white 80@83cts; damp 00@00 cts.; old white 00; new yellow 84@00. Oats—65@68 cts. weight.—Rye—\$1.50@1.55.

HAY AND STRAW.—Maryland Timothy baled \$20@22; Rye Straw \$17@18 per ton.

MILL FEED.—Brown Stuff 25 cts; Middlings 35@38 cts., per bushel.

MOLASSES.—Porto Rico, 65 cts; Cuba clayed 52@54 cts. E. Island 10@20 cts. New Orleans 70@80.

POTATOES.—Jerseys 85@90 cents per bushel; Eastern 95@\$1.

PROVISIONS.—Shoulders 14½ cts.; Rib sides 17 cts.; clear rib 17 cts.

SALT.—Fine \$2.90@3.10, per sack; ground alum \$2.00@2.10; Turks Island 50@55 cts., per bushel.

SEED.—Clover \$9.50 Timothy \$3.75; Flax \$2.55.

SUGAR.—Cuba 13@12½; Porto Rico 00@14 Demarara 15½@16½ cts.

## TOBACCO—

Maryland—frosted to common.....	\$ 4.00 @ \$ 5.50
"    sound common.....	6.00 @ 7.00
"    good do.....	7.00 @ 8.00
"    middling.....	8.50 @ 10.50
"    good to fine brown.....	11.00 @ 15.00
"    fancy.....	17.00 @ 30.00
"    upper country.....	7.00 @ 35.00
"    ground leaves, new.....	4.00 @ 13.00
Ohio—Inferior to good common.....	4.00 @ 6.00
"    brown and greenish.....	7.00 @ 8.00
"    good and fine red and spangled.....	09.00 @ 09.00
"    medium and fine red.....	9.00 @ 18.00
"    common to medium spangled.....	9.00 @ 13.00
"    fine spangled.....	15.00 @ 20.00
"    fine yellow and fancy.....	20.00 @ 30.00
Kentucky—common to good lugs.....	8.00 @ 10.00
"    common to medium leaf.....	11.00 @ 14.00
"    good to fine.....	15.00 @ 18.00
"    select leaf.....	20.00 @ 25.00

WOOL.—Unwashed, 30@33 cts; burry 25@27 cts.; tub washed 50@53 cts; pulled 32@38 cts.

WHISKEY.—94@95 cts.

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The popularity of "EXCELSIOR" as the only reliable substitute for Peruvian Guano, has induced unscrupulous parties in this and other cities to use the name "EXCELSIOR" to sell their worthless compounds. Every Bag of Genuine "EXCELSIOR" has our name on it in RED LETTERS. All others are counterfeits.

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See advertisement of "Excelsior" on another page.

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


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 John W. Webster, U. S. Revenue Assessor, 2d Dist., Maryland. Residence, Belair, Harford county, Md.  
 Joseph McCormick, Custom House, Baltimore. Residence, Belair, Harford county, Md.

Governor Bowie in letter, says: "That he had two Mowers in good order, but, after trying the Clipper, did not hitch them up; so well pleased was he with the work of the Clipper. He cut last year 125 acres, and when harvest was over, could not discover any wear of the knife bar, bearings or gear." Mr. Boyer says the Clipper can't be equalled; that he had tried what had been considered the best Mower, but that the Clipper far excelled it or any Mower he had ever seen used, and he believed he had seen all that were at all good. Geo. Kephart, Esq., and R. I. Worthington both say the Clipper cannot be equalled. In fact, every gentleman that is named above speak in the best terms of the *undoubted superiority* of the Clipper over all other Mowers. Send for book—and call and see the Machine before you buy. Cash price in Baltimore—No. 1, cuts 3½ feet, one horse, \$115; No. 2, cuts 4 feet, two horse, \$125; No. 3, cuts 4½ feet, \$135; No. 4, cuts 4½ feet, \$145. No. 2 has 30 inch driving wheels, and No. 4 has 36 inch driving wheels. These two sizes are mostly in demand. [I can furnish the No. 4 size as a combined Machine, with Dropper, Hand Rake, or Self-Rake. Price \$185 to \$230.] Call and see the Clipper before you buy—and try "WHANN'S RAW BONE SUPER-PHOSPHATE," \$56 per ton, in preference to all other phosphates.

 All communications and orders, to receive prompt attention, should be addressed to

**E. G. EDWARDS, 59½ S. Charles Street, Baltimore, Md.**

General Agent for Clipper Mowers and Reapers, and WHANN'S RAW BONE SUPER-PHOSPHATE—  
 The two best things of their kind out.

# RHODES' STANDARD MANURES!

## RHODES' SUPERPHOSPHATE.

The Old and Longest Established Standard Manure.

Used and approved by the most successful crop growers, and preferred by many to PERUVIAN GUANO. PRICE \$50 PER TON, in Bags or Barrels.

## Rhodes' Tobacco Manure.

Prepared with special reference to the growth of this important staple. PRICE \$55 PER TON, in Bags or Barrels.

## RHODES' POTATO MANURE.

BAGS or BARRELS. PRICE \$60 PER TON.

## ORCHILLA GUANO.

A. A.

A Fine Bird Guano. Rich in Phosphate and Alkaline Salts. PRICE \$30 PER TON.

No. 1 PERUVIAN GUANO at lowest market prices.

Farmers and Dealers apply to

B. M. RHODES & CO.

mar-3t

82 SOUTH STREET, Below Corn Exchange, Baltimore.

## LEACHED ASHES!

## LEACHED ASHES!!

5000 to 10,000 Bushels Leached Ashes, for sale by

JAMES WEBB,

Soap and Candle Factory,

Corner Chew and Ensor Streets,

Baltimore, Md.

mar-tf

Pat'd Water-Proof Paper  
Roofing, Siding, Ceiling,  
Carpeting, Water Pipes,  
Eave Gutters, &c. Address  
O. J. FAY & SONS, Camden, New Jersey.

mar-ly\*

## CAHOON'S

## BROADCAST SEED SOWER,

For Sowing all kinds of Grain and  
Grass Seeds.

See Cut and Description in reading columns.

For sale by

E. WHITMAN & SONS,

mar-tf

22 and 24 S. Calvert st., Balto., Md.

Notice to Farmers, Dairymen and Horsemen!

BREINIG, FRONEFIELD & CO'S

## VEGETABLE CATTLE POWDER.

FIRST INTRODUCED IN 1848.

This preparation contains the latest and most approved remedies for all diseases to which Horses, Cattle and Swine are incident. Either as a preventive or as a cure in the early stages of the dreaded disease of Pleuro-Pneumonia or Rinderpest, now making fearful inroads among our Cattle. This POWDER has already achieved reasonable reputation. It is compounded on strictly chemical principles; contains the elements to form healthy blood and generate animal heat, and is warranted to make an increase of at least 25 per cent. in the animal product, either as fat or as milk and butter, upon the same amount of food.

Prepared by

FRED. A. MILLER, Sole Agent,

No. 128 North 4th Street, Philadelphia, Pa.

N. B.—Do not fail to send for a pamphlet-giving full particulars.

feb-6t

## SMALLFRUIT INSTRUCTOR.

32 PAGES of plain directions for planting and cultivating, for family as well as market garden, and marketing all Small Fruits. Written from 20 years experience and gives all the information of the larger and more costly works, so as to put new beginners on equal footing with old fruit growers. We have hundreds of testimonials, of which the following from Rev. H. W. Beecher is a sample: "Your directions for growing Strawberries and Raspberries are the best I have ever seen." Price 10 cents. Wholesale and retail lists sent by mail free on application. Address, PURDY & JOHNSTON, Palmyra, N. Y., or PURDY & HANCE, South Bend, Ind.

jan-tf




# THOS. NORRIS & SON,


141 PRATT STREET, near Light, Baltimore,

SOLE AGENTS FOR

## Woods' Self-Raking Reaper.


PRICES—Self-Raking Reaper.....	\$165 00
“ “ “ with new Mowing Attachment....	205 00
New Joint Bar Mower, 4 foot 3 inch cut.....	125 00
Delivered on Cars or Vessel in Baltimore.	

These Machines need no commendation from us, being universally known as best, and positively inferior to none, in use the world over.  New descriptive circulars and price lists furnished upon application. Order early. More than fifty were disappointed last year in this State alone who ordered late.

**WESTINGHOUSE THRESHERS and CLEANERS**—Warranted to suit purchasers—Are sold by us as heretofore.  Circulars and price lists sent upon application. These machines have been long and favorably known as most desirable in use.

**BICKFORD & HUFFMAN'S DRILL** at manufacturers prices. Horse Powers of various kinds, warranted to give the best satisfaction. Self-Discharging Wheel Rakes, Revolving Hay Rakes, Gleaners, Hand Grain and Hay Rakes, Grain Cradles, Grass Scythes and Snaths. **WHEAT FANS**—Locomotive, Rockaway and Van Wickle—these are known to be the very best in the whole country, with all other machines and tools needed in the Harvest Field, &c.

Plows, Harrows, Cultivators, of our own make, of every description; Routt's celebrated Double Shovel Plow, Onio Iron Double Shovel Plow, and every other Implement and Tool needed on the farm; Corn Shellers, Cider Mills, Washing Machines, Clothes Wringers, &c., &c.

 Fresh and Genuing GARDEN and FIELD SEEDS, Fertilizers, &c.

**THOMAS NORRIS & SON,**

may-2t

141 PRATT STREET, BALTIMORE, MD.

# WM. H. LYMAN,

IMPORTER AND GROWER OF

## SEEDS, BULBS AND PLANTS,

Has the pleasure of offering to his Southern friends and the public generally


His Illustrated Floral Guide and Catalogue of Seeds, Plants, &c., for 1869,


Which contains descriptions of 1600 varieties of SEEDS AND PLANTS. It is splendidly illustrated with a large number of elegant wood engravings, and two beautiful colored plates, one of which is the celebrated "**MRS POLLOCK GERANIUM**."

In it will be found designs for arranging the Flower Garden, together with full directions for sowing seeds, transplanting, &c. This work is sent free to all my customers, and to all others on receipt of ten cents, which is not one-half the actual cost. Every one should have a copy. One lady says, "I should not be without it if it cost a dollar, for I know of no work which I could obtain that gives so much reading matter for less than fifty cents, saying nothing about the beautiful engravings."

I am also introducing my new TOMATO, the

### LYMAN MAMMOTH CLUSTER.


This Tomato is a cross between a French unknown variety and the Lester's Perfected, retaining the smoothness and solidity of the latter, growing in clusters; each stem bearing from six to twelve tomatoes. It is perfectly smooth and nearly round, about the size of a Baldwin apple; color of a rosy pink, and keeps well; solid, has but few seeds, and is no doubt one of the best early varieties we have. It is unexcelled for eating raw, and is delicious for cooking, being very high flavored. In earliness it excels the "Keyes Tomato," and ripens its fruit evenly, about TEN DAYS before the Early Red.  Undoubtedly the best market variety of Tomato in existence.

I shall retail the seed of this Tomato in packets, at 25 cents per package.  For Illustrated circular, containing description, recommendation, &c., address, enclosing two cent stamp,

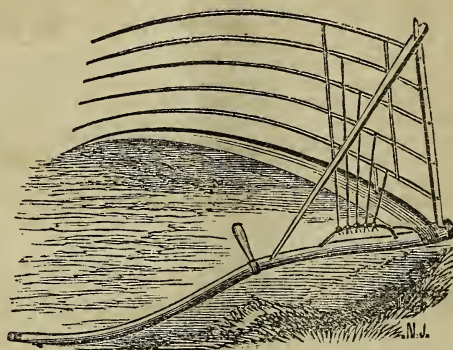
**WM. H. LYMAN,**

feb-4t

**Seedsman and Florist, Leverett, Massachusetts.**

 Publishers wishing to insert the above advertisement may address as above, stating terms, &c.

# GRANT'S PATENT GRAIN CRADLES.



E. Whitman & Sons, Sole Agents for Baltimore and Southern States.

There probably has never been an implement of any kind used by the farmer that has given such general satisfaction as GRANT'S PATENT GRAIN CRADLES. The very large demand for them from all parts of the world, where grain is raised, makes it necessary in order to secure a supply to send orders in early. The demand from California and Australia alone is greater than could be met by any other Cradle manufacturer in the country. To those whom we have supplied during the last twenty-five years nothing need be said, as they fully appreciate this article, and to others we would say that they need only to try them to realize their merit.

**Superior Grass and Grain Scythes**—Manufactured expressly for E. Whitman & Sons. English Pattern Grass Scythes, Cast Steel Waldron Pattern Grass Scythes, German Steel Waldron Pattern Grass Scythes, Silver Steel New York Pattern Grass Scythes, Cast Steel Bush Scythes, German Steel Bush Scythes, Cast Steel Grain Scythes, (English Pattern,) Waldron Pattern Grain Scythes, Dunn's Clipper Grass Scythes (every one warranted.) The latter is a new article, and we can recommend them as being something very superior. They are probably the most beautifully finished Scythe in the country, and come from the factory sharpened and already for use.

**Scythe Sneaths**—Manufactured expressly for E. Whitman & Sons. No. 3, Heavy, Ring Fastening, No. 2, Extra Heavy Ring Fastening, No. 1, Extra Heavy Bush Sneath, No. 2, Extra Finished Sneath, Patent Fastening.

**Scythe Stones and Rifles**.—Trumbull celebrated Diamond Grit, packed in one fourth gross boxes. We also have other varieties of Stones, which we can furnish at the lowest market prices: Common Rifles, Improved Double Coat Rifles, Treble Coat Rifles. HAND HAY RAKES, &c., &c.

 Dealers supplied on liberal terms.

**E. WHITMAN & SONS,**

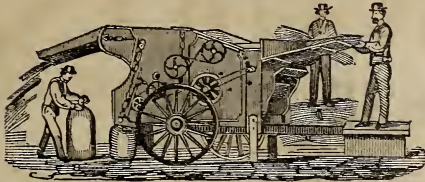
Nos. 22 and 24 SOUTH CALVERT STREET,



# GEISER'S PATENT

SELF-REGULATING

## Grain Separator, Cleaner & Bagger.

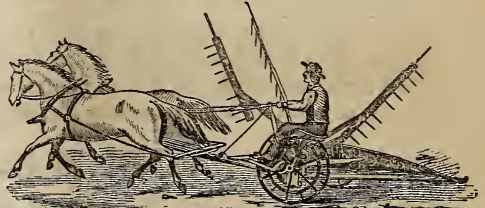


fixed on two wheels—and prepares the grain clean for market at one operation. This machine can be run with either lever or railway power.

## JOHNSTON SELF-RAKING REAPER,

For the past four years shows a merit that has no parallel in the history of Harvesters in this or any other Country.

The inventing of this Reaper just at the time when mechanics and farmers were settling down in the belief that they had already discovered the right and only practical method for securing grain, is one of those phenomena, or strides made in the inventive art that now and then occurs within a lifetime. Former efforts have been numerous and their results complicated, while in this we have the most simple structure imaginable, and which thus far proves susceptible of improvement only in form and strength; the universal acknowledgement has been, "The Principle is Perfect." The Johnston Self-Raking Reaper has an Adjustable Cut—i. e., it you are reaping standing grain, and all at once come to a lodged spot—by moving a lever at your side the cutters are lowered to gather it up; and this is raised and lowered in a moment, while the Machine is working.



## THE HUBBARD LIGHT MOWER.

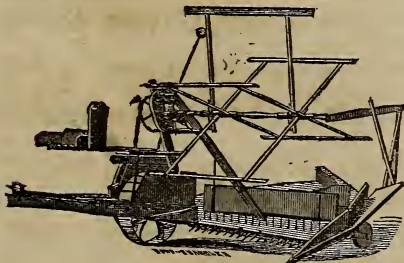


In presenting the Hubbard Light Mower to the Farmer for 1869, we do not propose to discuss at length its merits. It is so well and favorably known, that it needs no argument to convince any unprejudiced man, that it is the best Mower now before the public.

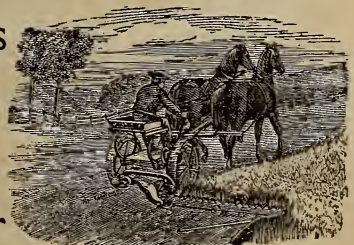
Years of labor have been bestowed upon the Hubbard Machine to make it as perfect as possible, and each year's improvements have added to its merits, until now it stands unrivalled as the best and the most perfect Mower in the world.

We make this assertion without fear of successful contradiction, and can verify the statement by thousands of references.

LINTON & LAMOTT, Baltimore, Md.



M'CORMICK'S  
REAPER  
AND  
MOWER.



**THE RELIABLE**—By which we designate the well known Self-Raking Reaper, (as represented above,) which has won for itself a world-wide notoriety as the machine which abolished the old style of raking by hand. It is a one-wheeled machine, with serrated sickle, and while built mainly with a view to reaping (in which it has no competitor for amount or quality of work it can accomplish per day,) it can also be very successfully used as a Mower. It is an indispensable machine for those who have more than about sixty acres of grain to harvest.

**THE McCORMICK PRIZE MOWER**—A two-wheeled, four foot cut Mower, with double-jointed Cutter-Bar, lifting and tilting levers, &c.; a superb Mower in all varieties and conditions of grass and ground.

For further information, pamphlets, &c., address

may-4t

LINTON & LAMOTT, 151 N. High St., Baltimore.

# 2,000 Barrels Pure Bone Dust.

Warranted Free from Adulteration.

—:0:—  
**JOHN S. REESE & CO.**  
—:0:—

We are prepared to supply the Farmers of Maryland and Virginia with BONE DUST, which we warrant and guarantee to be free from

## **ADULTERATION.**

This Bone Dust is not so fine as our Bone Flour, but sufficiently fine to prove active on the first crop. It is prepared in New Orleans for our sales.

We have every cargo subjected to careful chemical analysis, and thus avail of the proper means of protection for ourselves and our patrons.

**JOHN S. REESE & CO.**

feb-tf

No. 10 South Street, (2d floor) Baltimore, Md.

---

# **ZELL'S** **AMMONIATED** **Bone Superphosphate,**

*For Cotton, Tobacco, Corn, Oats,*

**Wheat, Rye, Potatoes, Turnips, Cabbage, Grass, &c.**

*Permanently improves the Soil. Quick and active as Peruvian Guano.*

**For this Valuable Fertilizer, we only ask a Trial side by side with any in the market to attest its superiority.**

**P. ZELL & SONS,**

89 SOUTH STREET, BALTIMORE, MD.

**NOTICE.**—For top-dressing Wheat it has no superior.

**Price \$60 per ton, in Bags or Barrels.**

**For sale by Agents and Dealers throughout the Country.**

mar-3m



# THE KIRBY HARVESTER.

—————:0:—————  
The Best Mower.

The Best Reaper.

The Best Self Rake.

The Best Combined Machine.

—————:0:—————  
50,000 NOW IN USE!

6,000 SOLD IN 1868!

—————:0:—————  
IT MOWS.

IT RAKES.


IT REAPS.

## PRICES IN BALTIMORE:

Hand-Raking Reaper,	-	-	-	-	-	\$150
Self-Raking Reaper,	-	-	-	-	-	190

**WARRANTY.**—That they are well built; of good material, and capable of cutting, with one span of horses, an acre of grass or grain per hour. The purchaser to have the privilege of cutting two acres of grass or grain as a trial of the machine. If it should not work well, he shall give notice to the agent, and allow him time to send a person to put it in order. If it cannot then be made to-work satisfactorily, it will be taken back and considered no sale.


The Grand Gold Medal was awarded to the KIRBY HARVESTER at the great National Trial at Auburn, New York, in July, 1866; also a Grand Gold Medal was awarded to it by the St. Louis Agricultural and Mechanical Association, at their Fair at St. Louis in 1866; and two highest premiums (Silver Medals) at the Minnesota State Trial at Rochester, 1867.

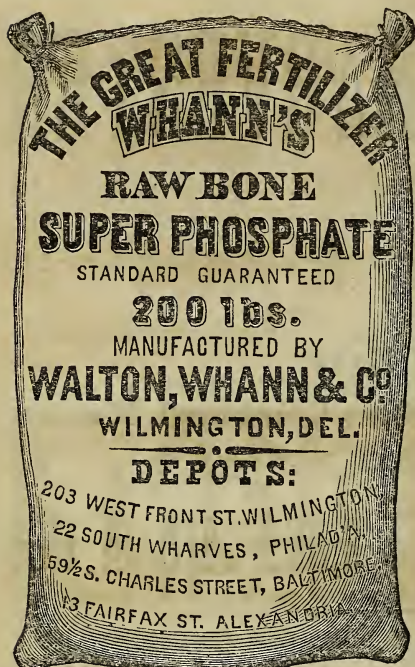
 Send for circular to

F. L. MOORE, Genl. Agent,

Nos. 22 and 24 SOUTH CALVERT STREET, Baltimore, Md.

Or to E. WHITMAN & SONS.

 A full stock of Extras will be found for the KIRBY from 1857 to 1869 at Messrs. E. WHITMAN & SONS, Baltimore. may-tf



**PROMPT  
ACTIVE  
RELIABLE**  
A THOROUGH RENOVATOR  
OF  
EXHAUSTED SOILS  
SEND FOR PAMPHLET  
**WALTON WHANN & CO.**  
**WILMINGTON**  
**DELAWARE.**

Price in Baltimore of Whann's Raw Bone Super-Phosphate \$56 per ton.

Baltimore office, 59 1/2 SOUTH CHARLES STREET.

ap-6t

E. G. EDWARDS, Agent.

## Important to Farmers!

### THOS. B. McCONAUGHEY'S PATENT CORN DROPPER



This Dropper will positively save one-half the time over the old way of dropping corn.

It will drop it right in the cross.

It can be set to average any number of grains desired to a hill.

It can be regulated to scatter the corn more or less in the hill, or drop it all in close bunch if desired. In windy weather this Dropper is just the thing needed, as the corn cannot be blown about while dropping.

All who have used these Droppers agree in the opinion that the corn comes up more regularly after them, and there is less re-planting to do, because they drop a more regular number of grains to a hill, and every grain is sure to be in the cross, where they are covered alike.

Every Dropper will be warranted to do all that is herein claimed for them, or they will be taken back and the money refunded.

This is to certify that we have sold 300 or more of McConaughey's Patent Corn Dropper to our customers of Middletown and vicinity, within three years past. They have given general satisfaction and are considered a valuable implement by the Farmers of this section.

JNO. A. REYNOLDS & SONS,  
Merchants, Middletown, Del.

NEAR SUMMIT BRIDGE, DEL., }  
March 13th, 1886.

This is to certify that I have used for several years McConaughey's Patent Corn Dropper, and I am convinced every Farmer would find it greatly to his interest to own one.

B. T. BIGGS.

MIDDLETOWN, March 13th, 1886.

THOS. B. McCONAUGHEY:—After three years' experience in dropping our corn with your Patent Corn Dropper, we have found their use to be a great saving to us over the old way of dropping, with better satisfaction in the manner in which they do their work, and we think we have had less replanting to do since we have been using them.

R. A. Cochran, Jr.,  
J. F. Wilson,  
R. F. Hanson,  
R. R. Cochran,

Wm. Wilson,  
W. A. Cochran,  
W. Green.

This is to certify that we, the undersigned, having used Thos. B. McConaughey's Patent Corn Droppers, have found them, after trial, to be a valuable and labor-saving invention. We think Farmers will find it to their interest to use them.

Wm. Reybold,  
Wm. Knotts,  
C. Tatman, Jr.,  
J. A. Reynolds, Jr.,  
W. Flinthane,  
Merit Hubbell,  
Jas. Kanely, Jr.,  
Jos. T. Griffith,  
B. Gibbs,  
N. T. Sevil,  
J. R. Hoffecker,  
R. T. Cochran,  
J. W. Crawford,  
J. J. Lockwood,  
Thos. S. Merrett,  
S. W. Stewart,  
T. Carlisle,

Geo. G. Kerr,  
R. D. Melvin,  
J. Stewart,  
Geo. Derrickson,  
W. R. Lockwood,  
Wm. D. Cornog,  
T. B. Nivine,  
O. Crow,  
Wm. N. Wilson,  
Sam'l Rambo,  
T. Murphy,  
Calvin Jones,  
Jno. C. Spear,  
Wm. S. Mote,  
C. P. Cochran,  
F. F. Kanely,  
Jos. Griffith.

Dealers in Agricultural Implements and Store Keepers will find it to their interest to keep a supply of these Droppers on hand for the trade.

Sample Droppers sent anywhere by Express for \$2 50 a piece.

Agents wanted in every county.

THOS. B. McCONAUGHEY,  
Newark, Del.

ap-8t



**BERGER & BUTZ'S**  
Excelsior Superphosphate of Lime



This valuable Fertilizer took the First Premium at the Agricultural Fairs held at Danville and Staunton, Virginia, in October, 1868, and may be relied upon as the best and cheapest fertilizer for Cotton, Tobacco, Corn, Oats, Wheat, Vegetables, &c.

R. J. RUTH & CO., General Agents,  
jan-ly 16 Bowly's Wharf, Baltimore, Md.

**BOWER'S**  
**COMPLETE MANURE,**

MANUFACTURED BY

**HENRY BOWER, Chemist,**  
PHILADELPHIA.

MADE FROM

Super-Phosphate of Lime, Ammonia and Potash.

WARRANTED FREE FROM ADULTERATION.

This Manure contains all the elements to produce large crops of all kinds, and is highly recommended by all who used it, also by distinguished chemists who have, by analysis, tested its qualities.

*Packed in Bags of 200 lbs. each.*

**DIXON, SHARPLESS & CO.,**  
AGENTS,

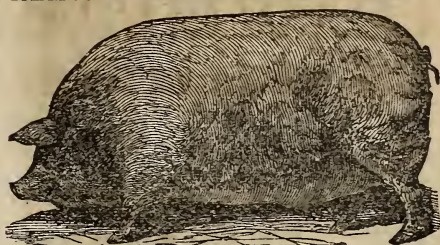
39 South Water & 40 South Delaware Avenue,  
PHILADELPHIA.

FOR SALE BY

**WILLIAM REYNOLDS,**  
79 SOUTH STREET, BALTIMORE, MD.

And by dealers generally throughout the country.  
For information, address Henry Bower, Philadelphia, feb-ly

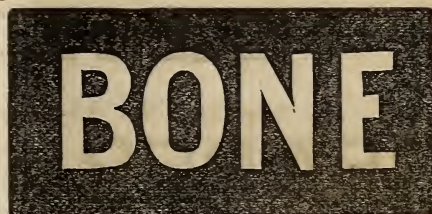
**PREMIUM CHESTER WHITE PIGS.**



Bred and For Sale by

**GEO. B. HICKMAN,**  
WEST CHESTER, CHESTER CO., PENN.

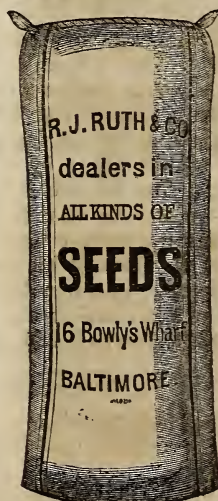
Send for a Circular and Price List. 1t



Guaranteed Perfectly Pure.

**R. J. RUTH & CO.**

mar-ly 16 Bowly's Wharf, Baltimore, Md.



**CLOVER,**

**TIMOTHY,**

**KENTUCKY**

**Blue Grass,**

**Red Top**

And all other

**SEEDS.**

Our SEEDS are new, free from weeds, and may be relied upon as the best in the market.

**R. J. RUTH & CO.**

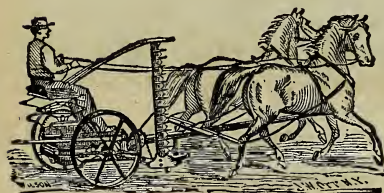
COMMISSION MERCHANTS,

jan-ly 16 Bowly's Wharf, Balto., Md.

# E. WHITMAN & SONS,

22 and 24 S. Calvert Street,

BALTIMORE, MD.



AGENTS

FOR

THE



## “EXCELSIOR”

Self-Raking or Dropping

# REAPER and MOWER

MANUFACTURED BY THE

J. F. Seiberling Company,

AKRON, OHIO.

The Excelsior is no longer an untried experiment; but, on the contrary, it is a successful reality, having now been before the public eight harvests, and having passed triumphantly through the severest tests on all kinds of land; up hill and down hill; through mud and mire; over stones, stumps and ditches; wet and dry; cutting through tangled and lodged grain and grass, and still doing its work equally well in all situations and conditions, until it is now acknowledged by all, both friends and adversaries, to have more good points than any other Reaper and Mower now known, and well worthy of its exalted name—EXCELSIOR—as it does in reality excel all others; being light, yet strong and durable; simple, without the least complication; the driver performing the whole—the driving and dropping off the grain—with as much ease as driving alone; throwing or dropping off the grain at pleasure, by a treadle under his foot, which delivers the grain in better condition to bind than a hand-raker can possibly rake it off, and when dropped, it lets the grain lay on the stubble just as it laid on the slatted platform of the machine.

### PRICES :

Large Combined Machine,	. . . . .	\$185 00
Junior “ “	. . . . .	170 00
Large Mower,	. . . . .	140 00
Junior “ “	. . . . .	125 00

Freight from Factory added to the above prices.

We would advise all who may desire to procure one of these most excellent machines to make early application, as the demand has been largely in excess of the supply for several past seasons.

Descriptive catalogues and circulars sent on application. Address

**E. WHITMAN & SONS,**

mar-tf

22 and 24 S. Calvert Street, Baltimore, Md.



# THE MARSH HARVESTER!

—:0:—

**SAVES LABOR!**

**SAVES MONEY!**

**SAVES GRAIN!**


POINT FIRST.—It saves half the cost of harvesting, two men doing the work of four.

POINT SECOND.—It saves all the grain, not a straw touches the ground till bound.

POINT THIRD.—It is a simple machine, has only half as much gearing as an ordinary reaper.

POINT FOURTH.—It is light running. You probably will not believe this until you see it run. You certainly will then. The reason it runs so light, is, the wheels are large, there is so little gearing, and the weight is evenly divided on the main wheel.

POINT FIFTH.—There is no side draft.

POINT SIXTH.—You can turn it round as easy as a cart or sulky.  Try it and see if this is not true.

POINT SEVENTH.—It is the best machine for lodged and tangled grain, because the grain is straightened somewhat in elevating to the concave, and the binders can get it in much better shape for binding, than they could if thrown on the ground.


Manufactured by EMERSON & CO., Rockford, Illinois.

For sale by

**S. SANDS MILLS & CO., Agents,**

Office of "Maryland Farmer,"

**24 South Calvert Street, Baltimore, Md.**

 Circulars sent free when requested.

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## MORO PHILLIPS'

GENUINE IMPROVED.

# SUPER-PHOSPHATE OF LIME

**STANDARD GUARANTEED.**

For sale at the Manufacturer's Depots,

**No. 27 Front Street, Philadelphia,**

**AND 95 SOUTH STREET, BALTIMORE,**

And by Dealers in general throughout the country.

The SOMBRERO GUANO of which MORO PHILLIPS' PHOSPHATE is and always has been manufactured, (and of which he has sole control for the United States,) contains fifty per cent. more Bone Phosphate than Raw Bone, therefore it is more durable. The addition of Ammonia gives it greater fertilizing value.

Over eight years' experience has proved to the farmer that it makes a heavier grain than even stable manure, and is not only active, but lasting.

Price \$50 Per Ton---2,000 Pounds. Discount to Dealers.

**MORO PHILLIPS,**

Sole Proprietor and Manufacturer.

**ALWAYS TRIUMPHANT.**

—:O:—

**WALTER A. WOOD'S  
PRIZE**

**MOWERS & REAPERS**

Used in all Countries, and universally commended as **THE BEST IN USE !**



Awarded **MORE FIRST PREMIUMS** than any other Machine manufactured, both in this and Foreign Countries, among which is **THE HIGHEST PRIZE—Two Grand Gold Medals and Cross of the Legion of Honor—AT PARIS EXPOSITION, 1867.**

More than 120,000 now in use. 20,000 manufactured and sold in 1868, and the demand unsupplied.

**INCREASING DEMAND !**

**INCREASED FACILITIES !**

**ADDITIONAL IMPROVEMENTS for 1869 !**

Wood's Prize Mowers, (one and two horse) ; Wood's Self-Raking Reaper with Wood's New Mowing Attachment ; Wood's Hand Rake Reaper, and Haines' Illinois Harvester. Manufactured by the **Walter A. Wood Mowing and Reaping Machine Company.** General Office and Manufactory **HOOSICK FALLS, RENSSELAER CO., N. Y.**

**BRANCH OFFICE AND SALESROOM** { **44 Courtland Street, N. Y. City, P. O. Box 5805.**  
**Alexandria, Va.**

Send for New Descriptive Circular and Price List. Applications from the South, south of Virginia, should be addressed to the New York Branch Office, as above.  
Reliable agents wanted. Extra inducements offered !

mar-41



# INTERESTING TO LADIES.

The following extracts are from the testimony, taken under oath, in a recent case pending before the United States Patent Office, upon the actual merits of the

## GROVER & BAKER SEWING MACHINE,

and its relative merits as compared with other machines:

Mrs. Dr. McCready, says:

"I have used, for nine years, a GROVER & BAKER MACHINE, and upon it I have done all kinds of family sewing for the house, for my children and husband, besides a great deal of fancy work, as braiding, quilting, and embroidering. During all that time my machine has never needed repair, except when I had the tension altered, and it is as good now as it was the first day I bought it."

"I am acquainted with the work of all the principal machines, including Wheeler & Wilson's, Finkle & Lyon's, Wilcox & Gibb's, Ladd & Webster's, the Florence machines, and Sloat's machines, besides a number of ten-dollar ones; and I prefer the Grover & Baker to them all, because I consider the stitch more elastic. I have worked now in the house that was done nine years ago, which is still good; and I have never found any of my friends who have used the other machines able to say the same thing

Mrs. Dr. Whiting gives the following reasons for the superiority of the Grover & Baker machines over all others:

"The elasticity of the stitch, and ripping when it is required; and also the stitch fastening itself, as you leave off; and also, the machine may be used for embroidering purposes; and therein consists the superiority over other machines.

"The stitch will not break when stretched, as the others do, and neither does it draw the work.

"I find this stitch will wear as long as the garments do—outwear the garments, in fact.

"I can use it from the thickest woolen cloth to Nansook muslin."

Mrs. Alice B. Whipple, wife of Rev. Mr. Whipple, Secretary of the American Missionary Association, testifies:

Q. As the result of your observation and experience, what machine do you think best as a general family instrument?

A. The Grover & Baker, decidedly.

Q. State the reasons, such of them as occur to you, for this opinion.

A. I think the stitch is a stronger stitch than that of any other machine I have used, and it seems to me much more simple in its management than other machines; one great advantage is the ease with which the seam is ripped when necessary to do so; and I think that the work, by an experienced person, on a Grover & Baker machine, is better than the work by such person on any other machine; it requires more skill to work other machines than the Grover & Baker.

Mrs. General Buel says she prefers the Grover & Baker machine over all others.

"On account of its durability of work, elasticity of stitch and strength of stitch. It never rips.

"It is preferred over all others; it is very easy in its movements, and very easily adjusted, and very simple in its construction.

"We can accomplish more in one week, by this sewing machine, than we can in a month by hand-sewing."

Mrs. Dr. Watts, says:

"I have had several years' experience with a Grover & Baker machine, which has given me great satisfaction. Its chief merit is that it makes a strong elastic

stitch; it is very easily kept in order, and worked without much fatigue, which I think is a very great recommendation. I am not very familiar with any other machine, except a Wheeler & Wilson, which I have had. I think the Grover and Baker machine is more easily managed, and less liable to get out of order. I prefer the Grover & Baker, decidedly."

Mrs. A. B. Spooner, says:

"I answer conscientiously, I believe it to be the best, all things considered, of any that I have known.

"In the first place, it is very simple and easily learned; the sewing from the ordinary spool is a great advantage; the stitch is entirely reliable. It does ordinary work beautifully, and the embroidery stitch. It is not liable to get out of order. It operates very easily. I suppose I can sum it all up by saying it is a perfect machine.

"I have had occasion to compare the work with that of other machines. The result was always favorable to the Grover & Baker machine."

Mrs. Dr. Andrews, testifies:

"I prefer it to all other machines I have known anything about, for the ease and simplicity with which it operates and is managed; for the perfect elasticity of the stitch; the ease with which the work can be ripped, if desired, and still retain its strength when the thread is cut, or accidentally broken; its adaptation to different kinds of work, from fine to coarse, without change of needle or tension."

Mrs. Maria J. Keane, of the house of Natalie, Tilman & Co., says:

"Our customers all prefer the Grover & Baker machine, for durability and beauty of stitch."


Mrs. Jennie C. Croly, ("Jenny June,") says:

"I prefer it to any machine. I like the Grover & Baker machine in the first place, because if I had any other I should still want a Grover & Baker; and, having a Grover & Baker, it answers the purpose of all the rest. It does a greater variety of work, and it is easier to learn than any other. I like the stitch because of its beauty and strength and because, although it can be taken out, it don't rip, not, even by cutting every other stitch."

The foregoing testimony establishes beyond question:

1. The great simplicity and ease of management of the Grover & Baker machines.
2. That they are not liable to get out of repair.
3. That a greater variety of work can be done with them than with other machines.
4. That the elasticity of the stitch causes the work to last longer, look neater, and wear better, than work done on other machines.
5. That the facility with which any part of the seam can be removed when desired is a great advantage.
6. That the seam will retain its strength even when cut or broken at intervals.
7. That, besides doing all varieties of work done by other sewing machines, these machines execute beautiful embroidery.

Over one hundred other witnesses in the case above referred to testified to the superiority of the Grover & Baker machines in the points named in substantially the same language, and thousands of letters have been received from parts of the world, stating all the same facts.

 Send for a Circular.

OFFICE AND SALES ROOMS,

181 Baltimore Street,

BALTIMORE.

# TO THE FARMERS & PLANTERS OF THE SOUTHERN STATES! "EXCELSIOR."

Containing Ammonia,	- - - - -	6 per cent.
Super-Phosphate equivalent to		
Bone Phosphate of Lime,	- - - - -	57 "
Potash of Soda,	- - - - -	5 "

Composed of 700 pounds of No. 1 Peruvian Guano, and 1,300 pounds of Soluble Phosphate of lime (bones dissolved in acid,) potash and soda, forming the most concentrated, universal and durable fertilizer ever offered to the farmer and planter—combining all the stimulating properties of Peruvian Guano, and the ever durable fertilizing properties of Ground Bones—supplying an abundance of Ammonia for any crop, and all soils, and in a perfectly fixed condition—not volatile and passing off with the first crop, as with Peruvian and other ammoniacal guanoes, but stimulating the crop to which it is applied, and all succeeding ones, giving to poor, worn out and unproductive soils, new life and vigor, making them, in this respect, equal to the most highly cultivated lands, upon which much time and money have been expended.

We introduced Excelsior in 1858, and challenge the manufacturers and venders of fertilizers, natural or artificial Guano, to show results so invariably successful as can be shown from its use. One of our firm superintends in person every minutia of its manufacture. We therefore warrant every bag uniform, and to contain by analysis, the standard of fertilizing properties, giving that protection to the farmer which he does not have in the purchase of any other Guano or Fertilizer sold.

Excelsior is in fine dry powder, prepared expressly for drilling, and can be applied in any quantity per acre, however small; and it is the opinion of the most prominent and calculating Planters, after eight years experience in testing it side by side with other popular fertilizers, that an application of 100 pounds per acre of Excelsior is equal

to from 200 to 300 pounds of any other fertilizer or guano offered for sale, therefore is fully 100 to 200 per cent. cheaper.

We are daily in receipt, from every quarter, of flattering encomiums from those who used it last spring and summer on cotton, corn and tobacco, and last fall on wheat, and had we the space could publish hundreds of testimonials, many from gentlemen who have continued its use year after year since its introduction.

The best evidence we can offer of the value of our Excelsior as acrop grower and fertilizer, is the fact of its being imitated and counterfeited in this and other cities. Some unprincipled manufacturers have actually used our trade mark for the purpose of palming off their worthless compounds.

EVERY BAG BRANDED AS FOLLOWS:



Farmers should see that every bag bears in red letters the name of J. J. TURNER & CO. under the inspection mark, and thus secure the genuine article.

J. J. TURNER & CO.,

Price \$70 Per Ton.

42 Pratt Street, Baltimore, Md.



# DISSOLVED BONES.

(SUPERPHOSPHATE.)


PREPARED BY OURSELVES

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Containing 15 Per Cent. Soluble Phosphoric Acid.

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One ton is equal to three tons of any other Super-Phosphate offered for sale. In fine, dry powder for sowing or drilling in with the Grain.

 PRICE \$56 PER TON.

**J. J. TURNER & CO.,**

42 PRATT STREET,

BALTIMORE.

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**J. J. TURNER & CO.'S**

**AMMONIATED**

**BONE SUPER - PHOSPHATE,**

Containing nearly 3 per cent. of Ammonia, dry and in good order for drilling. Very high encomiums have been paid its efficacy in the growth of Cotton, Corn, Tobacco and Wheat the past three years.

**J. J. TURNER & CO.**

42 Pratt Street, Baltimore.

# SEEDS! SEEDS!! SEEDS!!!

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## E. WHITMAN & SONS

Are now receiving by each of the regular steamers of the Baltimore and Liverpool line  
their stock of

## FIELD AND GARDEN SEEDS,

Grown for them in England and on the Continent of Europe,

Which, together with their AMERICAN GROWTH OF FIELD AND GARDEN SEEDS, will make the largest and best assortment ever offered in this market, and will enable them to compete with any house in this country.

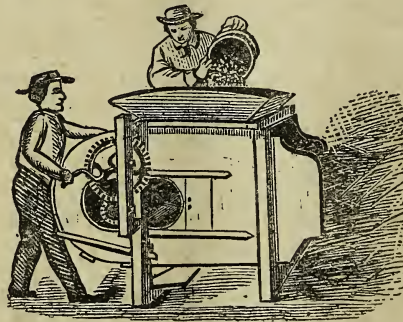
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E. WHITMAN & SONS,

22 and 24 South Calvert Street, Baltimore, Md.

## Montgomery's Rockaway Wheat Fans.

Awarded 115 Premiums.



8 Silver Medals.

We are the sole manufacturers of this justly celebrated FAN which has proved itself by many trials to be superior to any other yet invented.

It has in late contests obtained premiums over several Fans claiming to be improvements over the Rockaway, and now stands unequalled by any other Fan in the country.

Any person who has ever used one will give as good a recommendation as we could wish.

## EXCELSIOR WHEAT FAN.

We have sold a great many of these Fans during the last two seasons and can recommend them as being a good article. Having bought out the manufacturer's entire stock, consisting of over five hundred Fans, at an exceedingly low price, we can offer them at a much less figure than at which they could otherwise be sold.

Price,.....\$30 00

E. WHITMAN & SONS,

22 and 24 South Calvert street, Baltimore, Md.



# BONE DUST.

THE PURE ARTICLE ONLY.  
NO ADULTERATION.

Farmers and Gardeners cannot be too careful in purchasing their Manures, as they are obliged to depend entirely on the character of the manufacturer for the quality of the article sold. None but Chemists can detect a mixture in Bone Dust.

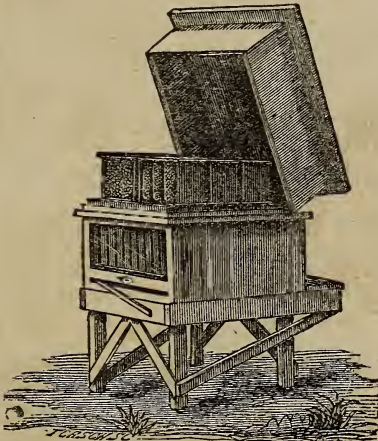
The Subscriber has always on hand at  
**MARKET PRICE,**

A large supply of the same kind of Bone Dust that he has been manufacturing for the last  
**TWENTY YEARS.**

**JOSHUA HORNER,**  
Cor. Chew and Stirling Sts.,  
BALTIMORE, MD.

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**LANGSTROTH'S**  
**PATENT**  
*Movable Comb Bee Hive.*



Patent Extended for 7 years from Oct. 1868.

Territorial rights, and hives of the above patent, with comb guides of his own patent, and surplus honey arrangements, may be had on application to the undersigner, owner of the Langstroth patent, for the States of Maryland, Delaware and part of Ohio.

**RICHARD COLVIN,**

No. 77 E. Baltimore St. Balt.

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N. B.—The public are cautioned against purchasing or using HIVES containing Moveable Comb Frames, which infringe in whole or in part the rights secured in the above patent.

R. C.

**HENRY GIBSON,**

MANUFACTURER OF

**TUBULAR DRAINS,**  
IN GLAZED STONEWARE.

ALSO,

**DRAIN TILES.**

LOCUST POINT,

Baltimore.

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**"FLOUR OF BONE."**

We will give a money guarantee of the purity of this article. It is pure *unsteamed, unburnt bone*, reduced to the *fineness of flour*, which adds 100 per cent. to its value. It is as *quick and active*, as acid dissolved bone, hence its value is vastly greater, because it contains neither acid nor water, which necessarily add weight, and reduce the quantity of valuable elements. We recommend 250 pounds to be used in place of 300 pounds Super Phosphate or dissolved bone.

**JOHN S. REESE & CO.,**

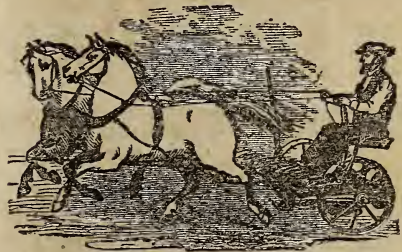
General Agents for the South,

71 South Street, Baltimore.

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**BUCKEYE MOWER & REAPER.**

**STILL THE CHAMPION MACHINE.**



Awarded First Premiums at the most extensive Field Trials ever held in any country. Manufactured by the Incorporated Company of

**C. AULTMAN & CO.**

Canton, Ohio.

For circulars, &c., apply to  
**JAS. BRUSTER,**

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77 North street, Baltimore, Md.

# IMPORTANT TO FARMERS !

## SUPER PHOSPHATES.

### THE MARYLAND FERTILIZING AND MANUFACTURING CO.

Incorporated January, 1867.

#### DIRECTORS.

WM. G. HARRISON,  
LAWRENCE SANGSTON,  
ROBERT TURNER,

WILLIAM NUMSEN,  
RICHARD J. BAKER,  
WILLIAM TREGO.

WILLIAM TREGO,  
*Manufacturing Chemist.*

LAWRENCE SANGSTON,  
*President.*

This Company, incorporated by the Legislature of Maryland for the Manufacture and Sale of Fertilizers, are now prepared to furnish the Agricultural community with their products.

Deriving their supply of material from the richest of the recently discovered deposits of Bone Phosphates in South Carolina, they have established, and will inflexibly maintain, a higher standard of Fertilizing value than any similar production hitherto on the market.

While the material they use contains 60 per cent. of Bone Phosphate of Lime, it is guaranteed to contain a larger per centage of SOLUBLE PHOSPHATE than any heretofore used.

#### FINE GROUND BONE PHOSPHATES,

Price \$30 Per Ton, in Bags.

Containing, by the average of the Analyses of Professors Piggott, Leibig and Popplein, 60.20 per cent. of Bone Phosphate of Lime.

The unusual per centage of *Soluble* Phosphate will make this form very desirable to Farmers who prefer to use it in its natural state, or to manipulate for themselves.

#### ALKALINE SUPER PHOSPHATE, price \$50 per ton, in Bags.

This preparation has special reference to the growth and development of the Seed or Grain, and is intended for soils that produce large crops of Straw, and small crops of Grain.

#### AMMONIATED SUPER PHOSPHATE, PRICE \$55 PER TON, IN BAGS.

Adapted to lands that require a full development of the crop, both Straw and Grain.

#### TOBACCO FOOD, price \$60 per ton, in Bags.

A speciality for the Tobacco Plant, rich in Ammonia, Potash and Nitrates, but adapted to all Plants that require a prompt and vigorous growth.

The Superiority of the South Carolina Phosphate is fully demonstrated by the fact that most of the leading manufacturers of Artificial Fertilizers are now using, or making arrangements to use it, as the Phosphatic base of their preparations, and large quantities are being shipped to Europe.

The various preparations of the Maryland Fertilizing and Manufacturing Company are made under the personal supervision of a Manufacturing Chemist of thirty years' experience, and are confidently recommended to the Agricultural community.

LAWRENCE SANGSTON, President,



## GARDEN TOOLS

AND

## Rakes, Hoe-Rakes and Sets of Tools

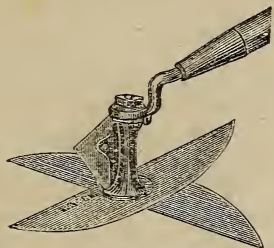
Manufactured by

**A. E. LYMAN & SON,**

NORTHAMPTON, MASS.

Also New York Depot, 30 BARCLAY STREET, N. Y.

**Labor Saving Machine for the Million.**



**LYMAN'S NEW PATENT**

## Weed Annihilator.

By actual test the most practical, useful, cheap and reliable WEED DESTROYER known, combining strength, durability, great ease in working, doing the work of two or more tools of the ordinary old styles now in use, with much greater ease and rapidity, cutting from 3 to 10 or 12 inches in width, with Steel tempered Knives, adjustable.

**E. WHITMAN & SONS, Agents,**

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**Maryland and Virginia Farms and Baltimore City Property**

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**WM. H. NEWTON & CO.,**

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We offer a large number of Farms, all sizes and prices, in the Southern States, and a large number of Dwellings in all parts of the city, besides business property on most of the business streets.

Titles guaranteed to be perfect to all the property we offer. We cordially invite all parties desiring to purchase or to sell Farms or city property to give us a call, and we will use our best efforts to please them.

All letters containing stamps will be promptly answered. Send two stamps for catalogue.

Address,

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N. B.—Money loaned on City and Baltimore County property. Collections made in all parts of the State.

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A Self-Acting Household Wonder,

FOR

## Washing & Cleansing Clothes,

And all articles of the coarsest or most delicate texture, without the least injury.

**NO LABOR! NO WEAR!! NO TEAR!!!**

**The Fountain Clothes Washer.**

This simple invention renders the hitherto most unpleasant of all days, viz., the washing day, comparatively easy and agreeable.

**"EUREKA"**

## Self-Adjusting Clothes Wringer,

*The only reliable Wringing Machine in the world.  
Steel Elliptic Springs.*

They say 'tis small and simple,  
Yet it does the million please—  
The Eureka ("I have found it")  
Can be worked with speed and ease.

The Eureka is not only a great labor saver, but also saves very much in the wear and tear of garments, clothes lasting as long again as when wrung without this machine, thereby paying for itself in every year's use.

**COLLINS & HEATH,**

Stove, Furnace and Plumbing House,

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23 Light Street, Baltimore.

## THE PHIFER "SKELETON" WHEEL

GANG PLOW AND CULTIVATOR, for Corn, Cotton and Potatoes, for the season of 1869, is constructed under an entirely new patent, (June 16th, 1868.) The four cast iron hangers (of the former patents) are substituted by a single wrought-iron rock shaft. The draught is directly from the beams of the plows, and consequently no neck draught on the horses. It is much more simple and efficient than our previous manufacture.

The "PHIFER PLOW" was awarded—

The GOLD MEDAL, at the Utica International Plow Trial, September, 1867.

The SILVER MEDAL, (highest award,) at the Maryland Institute, October, 1867.

The FIRST PREMIUM, at the Mechanics' and Agricultural Association, New Orleans, La., after the severest tests and most determined opposition, January, 1868.

For agencies and single machines, address the Manufacturers and Proprietors,

**A. L. BREARLEY & CO.,**

Eureka Agricultural Works,

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Office No. 117 Perry St., Trenton, N. J.



**SAMUEL HUNT,**

Manufacturer and dealer in

**Saddlery, Harness, Trunks,**

**TRAVELING BAGS, SATCHELS, &c.**

**No. 202 BALTIMORE STREET,**

*Between Charles and St. Paul Streets,*

**BALTIMORE, MD.**

Woolen and Linen Horse Covers, Fly Nets, Buffalo Robes, Whips, Spurs, Brides, Collars, &c.

Orders sent direct will be filled at same price as if bought in person.

sep-1y

# NAVASSA GUANO,

The only reliable source of Rich Bone Phosphate of Lime.

The attention of manufacturers of Artificial Manures and agriculturists is called to the following analysis of Navassa Guano. The fact alone of a good and increasing market having been found in Europe for this guano, whilst none of the many Phosphates for sale in this country can there find a purchaser, speaks as favorably for the richness and reliability of our guano as it is possible, and the further fact that it is the base of nearly all the well known Artificial Manures now manufactured, and the recommendation of it by such men as Prof. Voelcker, Sibson and Liebig, is sufficient guarantee to the user that by its selection he has obtained the richest Phosphatic Material extant. We guarantee the guano to contain a given amount of Bone Phosphate of Lime, to be analyzed upon arrival by any competent chemist the purchaser may select. Supplying the trade with this Guano in fine powder, packed in strong bags, containing twenty per cent. more Phosphate than any article now offered, at \$30 per ton, or crude, direct from Navassa Island, at proportionally low rates.

LABORATORY, 11 SALISBURY SQUARE, FLEET STREET.

*Analysis of six samples, representing that number of cargoes, lately brought to England.*

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.
Moisture.....	13.61	2.73	5.51	7.70	8.77	13.07
Water in combination and Organic Matter.....	6.73	7.39	6.50	7.04	6.67	....
*Phosphoric Acid.....	30.88	33.48	31.85	31.98	31.23	31.64
Lime.....	32.56	34.06	37.73	35.10	37.22	37.08
Oxides of Iron, Alumina, Carbonic Acid, &c.....	13.88	20.16	16.09	15.60	13.80	16.01
Insoluble Silicious Matter.....	2.35	3.16	2.32	2.58	2.31	2.22

	100	100	100	100	100	100
*Equal to Tribasic Phosphate of Lime (bone earth).....	67.41	70.90	69.50	69.81	68.18	69.07

The commercial value of Navassa Guano, it is scarcely necessary for me to say, is mainly regulated by the amount of Phosphoric Acid which it contains. In the foregoing analysis the percentage of Phosphoric Acid was accurately determined.

AUGUSTUS VOELCKER,

*Prof. of Chemistry to the Royal Agricultural Society of England.*

*Remarks and Analysis by Dr. Sibson, of London. 11 Eaton Terrace, St. John's Wood, Dec., 1867*

Amongst the natural deposits of phosphates now at command for furnishing the constituents of our super-phosphates and other prepared manures at present so extensively consumed in our fields, that of the Island of Navassa, lately brought to notice, appears to be one of the most important. In the search for Natural Phosphates, now pretty actively prosecuted, materials of this description are sometimes found, which may possess a certain amount of scientific interest, but are of no practical importance, solely on account of their insignificant quantity. Again, a phosphate possessing almost every desirable quality, may be excluded from the market by the unfortunate fact of its percentage of Phosphate of Lime being too low. Neither of these drawbacks, however, attach to the Navassa Guano.

As I find from analyses of several cargoes lately brought to this country, that the Navassa Guano possesses a high value, I consider that it merits more than ordinary attention.

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.
Moisture and Water of Combination.....	10.24	9.25	5.73	12.90	11.15	6.53
*Phosphoric Acid.....	32.94	31.57	33.43	32.31	31.27	33.03
Lime.....	37.91	37.34	40.15	35.13	34.90	37.20
Carbonic Acid.....	1.30	1.20	(not determined.)		1.68	1.02
Equal to Carbonate of Lime.....	2.95	2.72		3.75	2.32	
Oxide of Iron, &c.....	15.35	17.18	17.85	16.63	15.83	18.24
Insoluble Matter.....	2.25	2.46	2.84	2.13	5.17	3.98

	100	100	100	100	100	100
*Equal to Tribasic Phosphate of Lime.....	71.33	70.57	72.43	69.80	67.76	71.58

The average percentage of Phosphate of Lime, in most samples, I find to be over 70 per cent., which as an average, is higher than most Phosphatic materials now on the market.

ALFRED SIBSON, F. C. S., &c. *Royal Agricultural College, Cirencester, England.*

*Analysis by Dr. Liebig, Baltimore, of cargoes lately imported.*

Bark Savannah.....June 8, 1868,	containing, crude, 69.94—when dried, 76.61	per cent of Bone Phosphate of Lime.
Brig Cyrus Fassett, " 27, 1868,	" " 68.89	" " 75.16
Brig Fidelia....." 10, 1868,	" " 68.87	" " 75.44
Brig M. E. Banks.....May 8, 1868,	" " 66.03	" " 73.59
Brig Romance.....June 16, 1868,	" " 69.11	" " 76.61
Brig E. H. Rich.....Sept. 21, 1868,	" " 68.57	" " 74.56
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oct-1y

Vol. XIV. THE HOMESTEAD 1869.

AND

**WESTERN FARM JOURNAL,**

AN OFFICIAL STATE PAPER, published at the CAPITOL OF IOWA, weekly, contains full list of names, with the P. O. address, of officers of State and County Agricultural and Horticultural Societies in Iowa.

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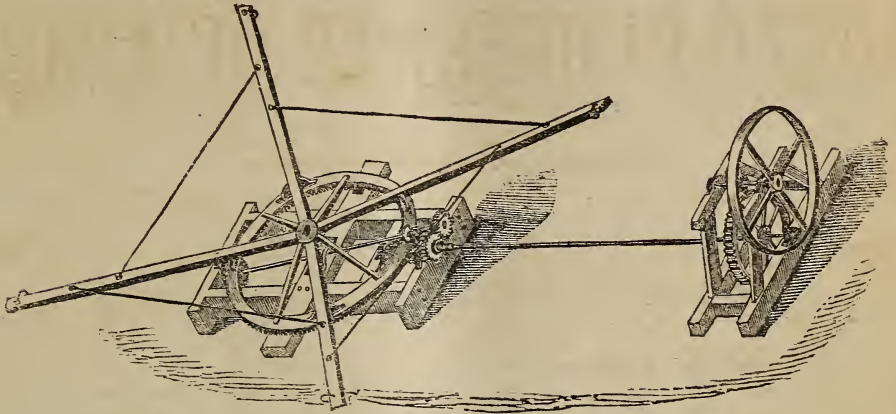
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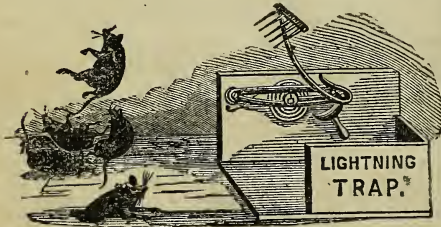
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is composed of the pure juices (or, as they are medicinally termed, *Extracts*) of Roots, Herbs and Barks, making a preparation highly concentrated, and entirely free from alcoholic admixture of any kind. This high concentration renders the Bitters, to those having a natural antipathy to bitter substances, rather unpalatable. To overcome this difficulty was compounded, as being the most palatable,

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~~Do~~ Do not forget to examine well the article you buy, in order to get the genuine.

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